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OCEANIC SOVEREIGNTY AND THE LAW OF THE SEA: FISHERY-BASED CONFLICTS

by

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June, 1997

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This thesis examines fishery-based conflicts (FBCs) and the oceanic sovereignty implications of FBCs in a world devoid of the East-West superpower rivalry. The argument herein is that in the absence of the Cold War rivalry, previously lower-priority economic issues rise to the forefront of international relations. The analysis suggests that political stability and naval enforcement capability play a significant role in whether a nation will commit its naval forces to defend its national maritime claims. The Andean nations of Chile, Ecuador, and Peru (CEP) are the subject of investigation since they possess several attributes theorized to lead to future FBCs.

Recommendations are presented as a starting point in formulating a two-fold strategy which will (1) minimize the likelihood of FBCs, and (2) respect the sovereignty of South American nations. Case studies of previous fishery-based conflicts are examined to determine the validity of the "Small Navy Theory". Also presented in this thesis are (1) the potential roles of the United States Navy and Coast Guard in protecting US fishing interest and/or functioning as the lead organizations for a UN-sponsored peacekeeping operation in the southeastern Pacific Ocean, and (2) the implications of FBCs to the U.S. Intelligence Community.

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OCEANIC SOVEREIGNTY AND THE LAW OF THE SEA: FISHERY-BASED CONFLICTS

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ABSTRACT

This thesis examines fishery-based conflicts (FBCs) and the oceanic sovereignty implications of FBCs in a world devoid of the East-West superpower rivalry. The argument herein is that in the absence of the Cold War rivalry, previously lower-priority economic and diplomatic issues rise to the forefront of international relations. The analysis suggests that political stability and naval enforcement capability play a significant role in whether a nation will commit its naval forces to defend its national maritime claims. The Andean nations of Chile, Ecuador, and Peru (CEP) are the subject of investigation because they possess several attributes theorized to lead to future FBCs.

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EXECUTIVE SUMMARY

In 1995, the United Nations Food and Agriculture Organization (UNFAO) reported that 70 percent of the world's marine fish stocks have been fully exploited, over-harvested, depleted or are recovering from previous overfishing. At the same time, fish are the primary protein source for many developed and developing nations. The Institute of National Security Studies adds that coastal states such as Canada, Argentina, Chile, and New Zealand have often been at odds with fishermen who travel from more distant countries (Spain, Portugal, Japan, and Russia) whose citizens seek to fish these waters.

This thesis evaluates the causes of these fishery-based conflicts (FBCs) and the implications of FBCs in a world devoid of the East-West superpower rivalry. The argument herein is that in the absence of the Cold War rivalry, previously lower-priority economic and diplomatic issues rise to the forefront of international relations. The analysis suggests that political stability and naval enforcement capability play a significant role in whether a nation will commit its naval forces to defend its national maritime claims.

The Andean nations of Chile, Ecuador, and Peru (CEP) are the subject of investigation because they possess

several attributes theorized to lead to future FBCs: developing economies highly dependent on export earnings from marine resources; vast, fertile fishing areas within their 200nm Exclusive Economic Zones; varying degrees of political stability; and relatively comparable naval missions and enforcement capabilities.

Recommendations are presented as a starting point in formulating a two-fold strategy which will (1) protect the ocean's biological environment, and (2) respect the sovereignty of South American nations.

Case studies of previous fishery-based conflicts are examined to determine the causal factors that lead nations to fight over biological marine resources and to test the validity of Ken Booth's concept of "Small Navies" in predicting the outcomes of FBCs. Also examined in this thesis are the potential roles of the United States Navy and Coast Guard in protecting US fishing interest and/or functioning as the lead organization for a UN-sponsored peacekeeping operation in the waters of the southeastern Pacific Ocean. Specifics include how the USN's Third Fleet, as Naval Component Commander (NAVFOR), and the Coast Guard, as Law Enforcement Component Commander (LAWFOR), can function in support of a fishery-based conflict Joint Task Force Commander (CJTF).

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I. INTRODUCTION

- In December 1996, angry British fishermen who were engaged in a row with their French rivals descended on Westminster to express their frustration. This incident followed an argument over disputed waters around the Channel Islands where both British and French fishermen claim a historic right to fish. Passions reached a peak when seven French boats, protected by a French coast guard vessel and helicopter, entered the zone and fished. [Ref. 1]

- In March 1996, the United Kingdom deployed a destroyer to the South Atlantic to protect UK fishing interests from unlicensed fishermen. Argentina's foreign minister protested the UK deployment and tensions between the countries have increased over the fishing issue. [Ref. 2]

- In November 1995, two Thai fishermen were killed by the Malaysian Navy. The following month, the Malaysian Navy seized and impounded three Thai trawlers while passing through Malaysian-claimed waters. [Ref. 3]

- In 1968, five Soviet trawlers sighted 120 nautical miles (nm) off the coast of Argentina and were tracked by Argentine Air Force aircraft and reported to naval units. In a coordinated pursuit Argentine warships deployed 200nm from shore and captured two of the five Soviet ships. One captured Soviet ship escaped from armed escort about 25 nautical miles off the coast. Argentine warplanes were vectored and opened fire on the escaping Soviet vessel in international waters. [Ref. 4:p. 80]

- In 1955, Ecuadorian President Jose Marie Velasco Ibarra confronted the United States, opening what would later become known as the "Tuna Wars." Ecuadorian naval vessels seized two U.S.-flagged commercial fishing boats and charged them with fishing inside the 200-nautical-mile limit claimed by Ecuador as territorial seas under its sovereignty. [Ref. 5:p. 35] Ecuadorian actions provoked a U.S. embargo on tuna imports from Ecuador.

These, and other, international incidents signal a concern for governmental policy-makers, military leaders, biologists, and economists in formulating new and accepted guidelines for the sovereignty and management of the world's oceans.[1] Accordingly, the concept of national security has evolved from the traditional definition of protection of the territorial integrity of the state and its vital national interests to include issues that threaten the Earth's ecological balance. Environmental protection and sustainability have entered the realm of national security affairs. The United Nations' Convention on the Law of the Sea (UNCLOS III) and the concept of oceanic sovereignty have emerged as such international relations issues as nations are preparing to enter the 21st century. Since 1995 the U.S. Department of State has elevated environmental concerns and issues to the forefront of diplomatic activities.

Concurrently, all the nation-states of the world are realigning from alliance formed during the East-West alignment of the Cold War. New and previously ignored transnational and transboundary issues are moving to the forefront of U.S. national security discussions. Environmental damage that can affect American interests and

[1] See Appendix B for a detailed summary of current fishery-based conflicts reported by the United Nations' Division for Ocean Affairs and the Law of the Sea.

citizens represents such a new challenge to the field of national security studies [Ref. 6:p. 6].

Without the constraints imposed by the West or the former Soviet Bloc, nations are now on their own in defining their sovereign boundaries and the extent to which they will protect their territorial claims, whether they be land or ocean areas. The uncertainty and potentially dangerous consequences of this new alignment of nation-states entwined with international environmental security problems were discussed by the environmental scholar, Elena N. Nikitina. Professor Nikitina posited that "As new states [of the former Soviet Union] establish sovereignty over natural resources and jurisdiction over conservation activities, they will want to regulate their environmental independently and establish their own environmental standards." [Ref. 7:p. 259].

The environmentally independent and unipolar structure of today's international system encourages not only a quest for resources but also a quest for territory. The desire for more space has left the bounds of terra firma and fostered an oceanic territorial race as a follow-on to the colonial expansionism prevalent from the fifteenth through nineteenth centuries. Motivation for this ocean territorial race include the vast mineral and biological resources of

the ocean and their expected impact on the national economies of developed and developing nations.

This thesis examines the implications of this oceanic sovereignty controversy has for the international relations of developing and developed nations. It remains a formidable task for member-states of the United Nations to enforce peacefully and build upon the 1982 Law of the Sea Treaty while simultaneously protecting the sovereignty of nation-states. Also, this study discusses possible consequences of a UN-sponsored, US Navy-led peacekeeping operation centered on a fishery-based conflict (FBC) in the southeastern Pacific Ocean.

The region of interest in this paper are the Andean countries of Western South America; Chile, Ecuador, and Peru. These three nations have played significant roles in the development of the UNCLOS III and in other international fisheries issues. The dependent variable under investigation in this study is the ***likelihood*** of fishery-based conflicts(FBCs) in the waters claimed by Chile, Ecuador, and Peru.

The fishery-based conflicts examined include the "Tuna Wars" of 1969 and 1971 between the United States, Peru and Ecuador, respectively, and the 1972 "Cod War" between Iceland and the United Kingdom. As the "Tuna Wars" have

demonstrated, the nations of western South America have displayed controversial and nationalistic tendencies to claim vast ocean areas.

Disputes over such ocean areas have the potential for escalation. According to maritime and political scholar Alfred Hu, at four times since World War II, disputes over ownership of the ocean "have converted usually peaceful and even romantic international fishing activity into bloody and prolonged diplomatic and military confrontation." [Ref. 8:p. 1].

To determine causal linkages that lead to such natural resource-based military confrontations, domestic political stability and naval enforcement capabilities of smaller, regional navies need to be analyzed. However, the majority of post-World War II naval theory and analysis has grown out of the experiences of blue-water, global navies, which are not applicable to the study of littoral, resource-based maritime conflicts that have involved the navies of Chile, Ecuador, and Peru. And, because the overwhelming majority of national naval forces are "small navies", essentially coast guards, Ken Booth's "Small Navy Theory" is applied to the case studies of this thesis.

A. PURPOSE

The purpose of this thesis is to examine the possible implications for U. S. and South American regional security that are posed by the bilateral disputes over the possession, management, and exploitation of major oceanic and coastal regions. Specifically, this study discusses current debates, competing theories, and foreign policy implications of oceanic sovereignty cause by the world fishing crisis.[2] This crisis over a renewable natural resource challenges international relations theorists and national security analysts because such environmental-based conflict place the rights and needs of individual nation-states against the needs of the continental and global communities.

Professor Oran R. Young, in his book entitled *International Cooperation*, posits, "Some natural resources lie outside the bounds of national jurisdictions or cut across existing jurisdictional boundaries in such a way that effective management by individual states is not feasible". Ref. 9:p 109] The principal problems of oceanic sovereignty involve conflicting claims to mineral resources (actual and

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[2] In 1995, the United Nations Food and Agriculture Organization (UNFAO) reported that 70 percent of the world's marine fish stocks have been fully exploited, over-harvested, depleted or are recovering from previous overfishing. These fish are the primary protein source for many developed and developing nations. So-called "coastal states" such as Canada, Argentina, Chile, and New Zealand have often been at odds with fishermen who travel from more distant countries (Spain, Portugal, Japan, and Russia) whose citizens seek to fish these waters. From the Institute for National Security Studies' *Strategic Assessment 1995*, U.S. Air Force Academy.

estimated offshore oil fields) and biological resources (fisheries) in disputed waters.

To avoid conflict over a natural resource that is transboundary, such as migratory fish species, supranational organizations have been suggested to hold the most promise. However, supranational institutions, such as the United Nations, the Organization of American States (OAS), or the Association of Southeast Asian Nations (ASEAN), have little or no concrete enforcement capabilities and may not be appropriately staffed, funded, or trained to address the particular ecological issue.

Young concludes that "supranational institutions in the form of a comprehensive global regime are not a preferred option for the management of the world's marine fisheries." [Ref. 10:p. 121]. He suggests that the main international relations dilemma in environmental security issues is that the management of living resources requires a high degree of international cooperation and a willingness on the part of nations to agree to some forms of international control and abdicate some of their authority over resources within their boundaries. Ocean fisheries, which should be perpetually sustainable resources, have now become threatened world commodities, subject to devastating collapse and resulting economic hardships.

According to the *Times Atlas of the Oceans:*

> Few nations, however, have shown a willingness to forego any of their sovereign rights or to cede authority over their affairs to international bodies. International laws and regulations remain, for the most part, gentlemen's agreements among nations. A country can and often does encourage commercial entities to ignore international law when it is economically advantageous for it to do so. Only international public opinion or, more rarely, the threat of force by one nation or by a group of nations can serve as an effective deterrent in compelling a country to stop sponsoring certain activities that are endangering a resource. [Ref. 11:p. 186]

Specifically, this thesis proposes that the degree of political stability or instability existing within a nation can be shown to have played a role in the initiation of fishery-based conflicts. This study asks if such domestic political stability or instability is present in Chile, Ecuador, and Peru and whether their naval enforcement capabilities are sufficient to protect their national maritime interests.

An important point must be made in respect to the analysis of international issues in the Latin American world. The term Latin America is often used in scholarly literature without due regard to the political, social, and economic differences that exist among the hemisphere's Spanish-speaking nations.

This thesis evaluates only characteristics of Chile, Ecuador, and Peru and acknowledges that while the variables herein may be applied to an analysis of other Latin American

nations, the assumption is NOT made that *all* other Spanish-speaking states will have identical reactions to foreign intrusion of their claimed territorial waters. For the countries of Latin America, oceanic sovereignty issues differ not only on the particular region of Latin America, i.e. Central America, the Andean nations, or The Southern Cone, but also differ within each individual nation.

B. RELEVANCE

The question of ownership of the fishery resources of the world oceans has caused significant military confrontation throughout the world and for as long as humankind has put to sea.[3] Coastal nations of every economic development level have created naval forces to defend their claims to marine resources. Currently, to prevent economic losses and preempt armed conflict, the United States Coast Guard monitors continually the fishery resources of both U.S. coasts, the Gulf of Mexico, and the South Pacific.

Within the South American context, this disputed ownership of the biological and mineral resources of the

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[3] James Wang, *Handbook on Ocean Politics and Law*, page 41. The very first idea of the sea as common property for all to use had its origin in the juridical writings of Marcianus. In the second century, the Roman jurist advance the proposition that the sea was *communis omnium naturali jure*, or common to all as part of natural law. By the sixth century the concept was codified in Roman law. While the Roman Empire accepted the legal status of the sea as common property for all, nonetheless it declared in the "Theory of Glassators" that it exercised effective control, but not outright ownership, over the Mediterranean Sea. This exercise of Roman jurisdiction of the adjacent sea was made for two purposes: to extend Caesar's power into the sea and to suppress piracy.

waters of the South American continent remains a highly contentious issue. Countries with robust commercial fishing fleets that operate far from their own territorial waters, reject Chile, Ecuador, and Peru's expansion (from 12 nautical miles 200 nautical miles) of the UNCLOS III concept of territorial waters.

The *Times Atlas of the Oceans* accurately describes the results of this expansionism stating, "As a result of greater determination to claim sea areas and ocean resources, more states have been developing modern, versatile and 'appropriate' levels of naval forces capable of defending their perceived rights and asserting claims in near and distant waters." [Ref. 12:p. 186] Therefore, the different perceptions and legal interpretations of the territorial waters concept cause the developed 'North' countries and underdeveloped 'South' countries to be at odds.

Unlimited pursuit of national and commercial interests from both the 'North' and 'South' has resulted in the exploitation of the marine resources past its sustainable production levels, i.e. the vanishing of the California sardine fishery and the destruction of the cod fishery of the Grand Banks serve as examples of such exploitation.[4]

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[4] In the 1930s, overfishing of the waters of northern California led to a total collapse of the sardine fishery. More recently, overfishing by commercial fleets from various nations has led to the destruction of the cod fishery off the eastern coast of Canada. This destruction of marine resouces has caused severe

C. IMPACT TO DEVELOPING NATIONS

For Latin American nations, protecting their maritime interests while abiding by international regulation represents a special challenge. If faced with the naval military forces of the 'North', can Chile, Ecuador, and Peru adequately protect their commercial fishing fleets and claimed waters? Can the loss of revenue and protein sources for developing nations be overcome by other economic activities or food production? If distant-water fishing fleets exhaust the renewable fishery resources of the southeastern Pacific Ocean, what can or should be done by the governments of Chile, Ecuador, and Peru?

These questions place Chile, Ecuador, and Peru squarely opposite the majority of the member-states of the United Nations and the other signatories to the UN Law of the Sea. These three Andean nations, as custodians of the greatest fisheries of the world, must enforce abide by their own resource management plans and objectives in order to protect their national economies and the fisheries of the southeastern Pacific Ocean. Therefore, fishing, and more accurately 'overfishing', of the high seas will continue to challenge such nations of the 'South' and contribute to the proliferation of future fishery-based conflicts.

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economic hardships for Canadian fishermmen and prompted the Canadian government to seek expansion of their territorial water claim past 200 nautical miles.

Contrary to the East-West rivalry of the Cold War, resource-based disputes can foster a North-South rivalry. In such a rivalry, the acknowledgment that natural resources are not infinitely available has led to international conflict over the management and use of these resources.

These environmental issues, once conveniently put aside in favor of political survival concerns, have emerged as a preeminent threat to nation's economic development and the Earth's long-term capacity to sustain human life.

The 1991 Persian Gulf War clearly illustrated that manipulation of natural resources, in this case the Iraqi's desire to control Persian Gulf oil production, can lead to world condemnation and armed conflict.

Although not as critical to world industrial survival as the free market flow of oil, fishery conflicts have more of an impact to the developing nations because for a number of nations, fisheries constitute either a major source of animal protein or source of export earnings. Fisheries are a potential source of food for a large number of developing nations with rapidly growing populations.[5] Peter Weber writes in *The State of the World 1995* that "Worldwide, fish and other products of the sea account for 16% of the animal

[5] UNFAO, Marine Fisheries, at approximately 70 million and 52 million tons per year, respectively, beef and pork production are second and third to marine fish production of 80 million tons per year, from Lester Brown et al., *Vital Signs 1993*, W.W. Norton & Company, 1993.

protein consumed, more than either beef or pork, and for 5.6% of total protein intake [Ref. 13:p. 21].

Lastly, the relevance of studying oceanic sovereignty is that the lessons learned in examining the causes of environment-based conflicts may be lead to national and international strategies that protect natural resources and prevent direct military confrontation. Without such strategies, there is a high probability that the U.S. Navy or Coast Guard can be drawn into regional fishery-based conflicts in a protective role or as the lead in a UN peacekeeping mission. To support such a UN mission, the U.S. Intelligence Community must be aware of current oceanic sovereignty issues and concepts. Intelligence analysts must increase their regional expertise and Law of the Sea knowledge base in order to effectively satisfy the intelligence requirements of naval forces engaged in FBCs or other resource-based naval conflicts.

D. DEFINITIONS

What is oceanic sovereignty? In the absence of a universally accepted, all-encompassing definition, oceanic sovereignty can be said to be the protection, management, and use of oceanic resources to benefit the national economy and provide for the general well-being of the nation's population. However, oceanic sovereignty is an

international and not solely a national security issue. Professor Peter J. Taylor, using a quote from I. Wallerstein, wrote, "Sovereignty is never a matter for a single state; it is an inter-state arrangement...[that] can exist only 'for states who reciprocally recognize each other's legitimate existence within the framework and norms of the inter-state system'" [Ref. 14:p. 159]. This international focus of oceanic sovereignty is in contrast to traditional national security issues, such as invasion from foreign forces, and can lead to ecological degradation, economic instability, and conflicts.

Other key concepts relating to the oceanic sovereignty debate include:

1. Political Stability

In simplest terms, this concept refers to the ability of a nation's political institutions to maintain order, protect the lives of its citizens and health of its economy, create and enforce laws, and perform non-violent transfers of power. Political stability can be defined using a wide range of factors including: number of years since independence; number of administrations since independence; duration of current administration; the existence of a loyal opposition; civilian control over the military; the

existence and influence of anti-state guerrilla groups; and the condition of the national economy.

Based on these factors, the United States can be said to be in the group of nations exhibiting the highest degree of political stability while nations such as Cambodia (Kampuchea) exemplify those nations with the lowest degree of political stability. Latin American nations generally fall somewhere between these two extreme measures of political stability.

2. National Maritime Claims

This concept involves the determination that certain areas of the ocean are the sovereign property of a particular nation-state and that naval deployments will be conducted to protect maritime claims. These bounded areas, according to Peter J. Taylor, have become a geo-political necessity of today's world-economy because "a world of sovereign states is a world of boundaries" [Ref. 15:p. 164].

Examples of non-traditional naval missions in support of boundary determination and sustainment include fishery and EEZ protection, sea lanes of communication (SLOC) protection, maintenance of access to Antarctica, and coastal defense.

Jonathan Bartlett, in his edited volume *The Ocean Environment*, presents the four principal national maritime

claims of oceanic sovereignty as disputes over territorial seas and strategic straits, over the biological resources of the oceans, over the seabed and subsoil mineral riches, and over marine pollution. [Ref. 16:p. 165]

3. Naval Enforcement Capability

Naval enforcement capability is composed of five characteristics that can illustrate a nation's ability to defend its national maritime claims. The traits are;

- Gross tonnage of ships in inventory
- Types of ships and weapons systems
- Training and proficiency of crews
- Political will to deploy naval forces
- Defense budgetary limitations

The Commander-in-Chief of the Russian Navy, Admiral Felix N. Gromov, explained the concept of naval enforcement capability for his country as the ability to "back up" Russian interests in vital regions of the world oceans.[6]

4. Coastal States

Coastal states are those developed or developing nations that are located adjacent to ocean areas and claim territorial waters and exclusive economic zones. Coastal

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[6] *Naval Forces Magazine* interviewed the Commander-in Chief of the Russian Navy, Admiral Felix N. Gromov. When asked for his vision of the roles and missions of the Russian Navy he replied, "...[the] Russian Navy, just like the naval forces of major world powers, is engaged to handle other critical tasks to support the national interests. They include: backing up Russian interests in vital regions; defending the country's sovereignty and territorial integrity, surveillance and patrol of the EEZ and related airspace; securing commercial activities such as shipping, fishing, trade, minerals, and other economic projects..." *Naval Forces Magazine* Volume X, No. III/1996, p 15.

states play an integral role in oceanic sovereignty because as marine resources have become less abundant and more valuable, these states have sought to control the resources through expanding maritime boundaries.

According to the UNCLOS III, such coastal states are directed to manage their fishery resources according to the norm of maximum sustainable yield. The non-living resources of the continental shelf are to be managed by the coastal state with due regard to consequences for the environment.

5. Maritime Powers

Maritime powers are those nations possessing a naval capability to protect their national maritime claims and enforce treaty conditions, i.e. the United States, the United Kingdom, and Russia. The definition of maritime power also includes those nations that derive significant economic power from the production of their local and distant-water fishing fleets, i.e. the United States, Japan, South Korea, and Russia.

6. Fishery-Based Conflicts (FBCs)

For the purpose of this study, fishery-based conflicts are defined as active conflicts between at least two nations over the access to biological marine resources, amounts of fish harvested, or methods of fishing employed. The species

involved can include pelagic as well as sedentary organisms. An FBC can be of three levels of seriousness;

- Low: minor diplomatic protests and no subsequent military actions;
- Medium: moderate diplomatic conflict with or without actual or implied military actions;
- High: intense diplomatic actions culminating in military actions or economic embargoes.

7. Law of the Sea Treaty.[7]

The United Nations Law of the Sea Convention of 1982 (UNCLOS III) is the international agreement that came as a result of negotiations from 1973 to 1982. UNCLOS III was the third attempt at an acceptable multilateral framework for protecting the ocean environment and properly managing the sea's biological and mineral resources. Significant to discussions of international relations issues and in the words of maritime scholar James C.F. Wang, "the UNCLOS III provided, for the first time in human history, a comprehensive legal framework for all uses of the oceans." [Ref. 17:p. 36]

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[7] UNFAO Division for Ocean Affairs and the Law of the Sea. The United Nations Convention on the Law of the Sea was opened for signature on 10 December 1982 in Montego Bay, Jamaica. This marked the culmination of more than 14 years of negotiations involving the participation by more than 150 countries representing all regions of the world, all legal and political systems and the spectrum of socio/economic development. The Convention, which entered into force on 16 November 1994, embodies and enshrines the notion that all problems of ocean space are closely interrelated and need to be addressed as a whole. On 16 November 1993, Guyana became the 60th State to ratify the UN Law of the Sea Convention (UNCLOS).Today, it is the globally recognized regime dealing with all matters relating to the law of the sea. INTERNET, http://www.un.org/Depts/los/losconv1.htm, January 1997.

The principal provision of the UNCLOS III was the extent of jurisdiction that states may exercise offshore: a territorial sea of 12nm (with a contiguous zone of an additional 12nm for customs, fiscal, immigration and sanitary regulation); coastal state jurisdiction over resources in an Exclusive Economic Zone (EEZ) of 200nm; and coastal state jurisdiction over the continental shelf in cases where it extends beyond the EEZ.

8. Migratory Fisheries

Migratory fisheries represent an especially contentious issue in the debate over sovereignty of ocean resources. By definition, migratory fisheries are those in which the aquatic species spawn within recognized territorial boundaries then travel to international waters during the course of their lifetime. The Salmonids of the U.S. Pacific northwest are an example of the difficulty migratory fisheries pose in the Law of the Sea debate. The salmon spawn in rivers within the sovereign inland territory of the United States and as such, the fish are considered by the U.S. Government to be property of the United States or American 'citizens.' However, since during the salmon's maturation, they consume the resources of the international high seas, many countries, notably, Japan and Russia, consider the species international property, subject to

capture by any nation.[8] Oran Young states, "Many stocks of fish and other oceanic resources, such as marine mammals or oceanic birds, range over extensive areas without regard for the jurisdictional boundaries of sovereign states." [Ref. 18:p. 109].

Anticipating this difficulty with the migratory nature of living resources, the UNCLOS III relies on regional fishing organizations to address conservation and management details. Where difficulties over straddling stocks and high seas fisheries arise, disputes are supposed to be settled by negotiation and arbitration, thus avoiding direct military conflict.

9. Territorial Waters

Territorial waters are deemed to be the sovereign property of the state, similar to the land areas within its accepted international boundaries. Therefore, nations are thought to have the inalienable right to defend their territory from invasion or exploitation by foreign forces.

Article Three of the UNCLOS III Convention states, "Every state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12nm, measured from the baselines determined in accordance with this

[8] International law provides several opposing doctrines relating to property rights over international waters: the doctrines of unlimited territorial integrity, equitable and reasonable use, and unlimited territorial sovereignty. However, the fact remains that the strongest and most advantageously positioned countries can claim and use the resource with little concern for the impacts on others.

Convention." This territorial waters provision of the UNCLOS III has serious implications to international relations, national security, and naval operations because the 12nm line overlaps more than 135 international straits.

The territorial waters provisions of the UNCLOS III increased the political and economic power and influence of the world's coastal states but caused initially a furor among the industrialized nations that had ocean-going naval capabilities. These major naval powers were appeased when the UNCLOS III territorial waters doctrine was tempered with the concepts of innocent passage and freedom of navigation.

10. Contiguous Zone

A contiguous zone is a 12nm belt of water adjacent to, but extending seaward beyond, the territorial sea; in this zone the coastal state exercises a certain special jurisdiction for the enforcement of customs, immigration and health laws. It has also been the practice of coastal states to declare such a contiguous zone for defense and security purposes.

11. Continental Margin

In his comprehensive volume entitled *Handbook on Ocean Politics and Law*, James C.F. Wang defines the continental margin as that portion of the solid earth's surface adjacent to land, but underlying a coastal plain that extends

seaward. Generally consisting of a shelf, a slope and a rise, the continental margin gently slopes seaward from the tide water to a depth of 150-200 meters. [Ref. 19:p. 9-10]

12. Exclusive Economic Zones (EEZ)

The exclusive economic zone is an area beyond and adjacent to the territorial sea extending out to 200nm wherein the coastal state has exclusive rights to exploit the biological and mineral resources of the seas. Figure 1 graphically depicts the relationships and limitations of the ocean sovereignty concepts of the UNCLOS III.

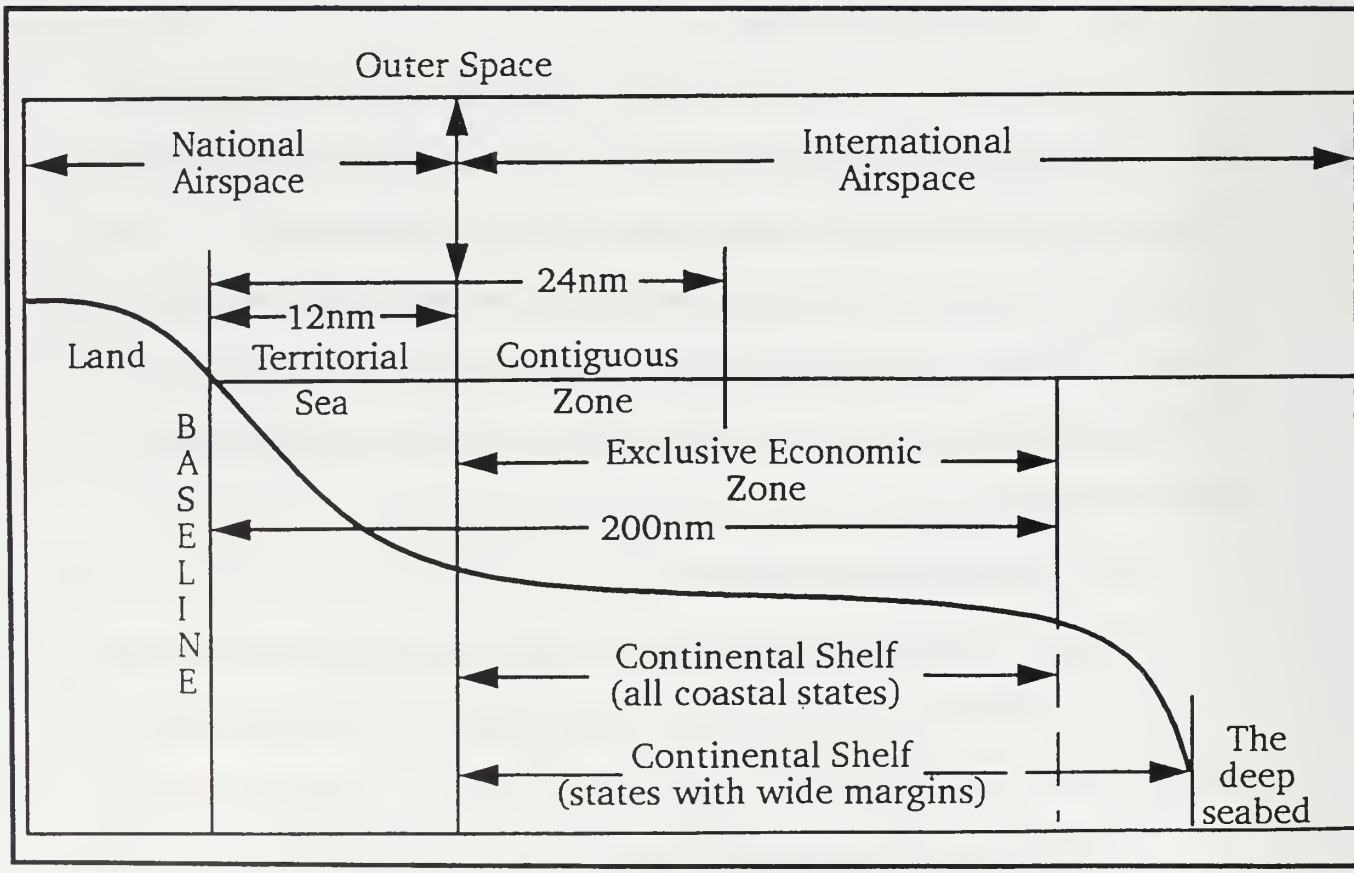

Figure 1. Legal Regimes of Ocean Areas [Ref. 20:p. 12]

13. Hot Pursuit

The customary rule in international law known as "hot pursuit" refers to the right of a coastal state to apprehend a foreign vessel that is believed to have committed a crime within its territorial waters. The right of hot pursuit ceases once the suspect vessel enters the territorial waters of another state. [Ref. 21:p. 79]

14. Innocent Passage

The UN Convention on the Law of the Sea states that all states have the right to "innocent passage" of another states' territorial waters provided the passage is not prejudicial to the peace, good order, or security of the coastal state. [Ref. 22:p. 81] Within this definition, the free access to international shipping lanes provides the world community with price stability and for example, ships passing from Japan to the Middle East that were unable to pass through international straits controlled by Indonesia would be forced to re-route around Australia, adding 5,800 nautical miles and 15 days (assuming a speed of 15 knots) to their journey. [Ref. 23:INTERNET]

The oceanic sovereignty perceptions of the lesser-developed coastal states is often contrary to the position of maritime powers and their concern for "freedom of navigation". In his doctoral dissertation on fishery

conflicts and national policy-making, Alfred Hu states that "...To most coastal states, the most tangible and valuable assets in the seas are the living and non-living natural resources the seas contain, rather than the intangible 'freedom' of the high seas." [Ref. 24:p. 49].

However, to the United States, the concept of 'freedom of the seas' and innocent passage remains a vital national security priority. Since 1979, U.S. military ships and aircraft have asserted navigational rights against excessive claims of more than thirty-five countries, at the rate of thirty to forty per year. The most well-known of these operations was the 1986 challenge to Libya's claims to the Gulf of Sidra. The U.S. Defense Department has been a supporter of provisions of the Law of the Sea prior to its official inception. In 1994, U.S. Secretary of Defense, William Perry summarized the U.S. position stating, "We support the Convention [UNCLOS III] because it confirms traditional high seas freedoms of navigation and overflight; it details rights through international straits; and it reduces prospects for disagreements with coastal states during operations." [Ref. 25:INTERNET]

15. Non-Traditional Missions (NTMs)

For the purposes of this thesis, non-traditional missions are defined those military operations that are not classified as traditional uses of a global navy, e.g. strike warfare, power projection, or deterrence. Examples of NTMs include fishery patrols/protection, drug enforcement operations, refugee management, pollution control, and disaster relief. Disputes and conflicts occurring in the waters surrounding the South American continent represent examples of non-traditional naval missions involving overlapping EEZs, traditional fishing claims, offshore mineral rights, and claims of national jurisdiction and rights.

The U.S. Naval Intelligence Community leadership has recognized the emergence of NTMs, including fisheries monitoring, and provided direction for intelligence professional in "supporting a wider range of national concerns." [Ref. 26:pp. 14-16]

E. SUMMARY

This chapter introduced the purpose and relevance of oceanic sovereignty and presented the key concepts involved in the dispute over ocean access and biological resources. International treaties and cooperation, arguably ineffective in conflict avoidance, have been proposed as the best means

for protecting the sovereign rights of nations and simultaneously maintaining the sustainability of the world's oceans.

Awareness of these key oceanic sovereignty concepts is needed within the U.S. Navy and, more specifically, the U.S. Naval Intelligence Community since both organizations will be substantially involved in fishery-based conflicts and/or UN-sponsored peacekeeping missions. United Nations missions of environmental protection and monitoring, such as enforcing the UN's moratorium on the use of driftnets, are current examples that prove that military assets will continue to be used as tools for environmental salvation. [Ref. 27:p. 16]

Further discussion of oceanic sovereignty issues, including historical and technological background of the world's fishing crisis, is essential for future naval surface warfare officers, aviators, and intelligence professionals.

II. HISTORICAL AND TECHNOLOGICAL BACKGROUND

The history of the Law of the Sea is a continuing story of armed conflict and diplomatic tensions. This perennial conflict pits coastal states seeking to exercise jurisdiction over ocean waters off their shores against other states seeking to exercise freedoms of navigation, fishing, and other common interests in the ocean. [Ref. 28:p. 3]

This chapter will present key developments in the history of the Law of the Sea and provide scientific and technological data on the fishery production of Chile, Ecuador, and Peru. It is argued that historic legal developments, created in 15th century Western Europe, and naturally-occurring scientific phenomena (with its associated economic importance to fishery production) have caused oceanic sovereignty to be such a complex issue for Chile, Ecuador, and Peru.

A. HISTORY

Oceanic sovereignty issues of the modern era date back to 1494 when the nations of Spain and Portugal created the Treaty of Tordesillas, effectively dividing the known world between the two monarchies. Challenges to the treaty

initially came from the nations of northern Europe and led to centuries of diplomatic conflict and naval engagements.

The shrinking of these expansive claims began with the great juridical debates about *Mare Liberum* (open sea) and *Mare Clausum* (closed sea) that occurred in the early 17th century. The most influential voice in these debates was that of the Dutch jurist Hugo Grotius. In 1609, Grotius published his opinions on *Mare Librium* in which he argued for the right of the Dutch to trade in the East Indies. This ignited a international conflict since the Portuguese claimed a monopoly on the right of trade and navigation of the East Indies flowing from the Papal Bull and Treaty of Tordesillas [Ref. 29: pp. 3-5]. As Grotius stated, "[the ocean] can neither be seized nor enclosed...[because the ocean] rather possesses the earth than is possessed by it." [Ref. 30:p. 167].

The importance of ownership of the oceans expanded greatly during the 18th and 19th centuries. The rise of imperialism and colonization led the nations of Europe and the United States to place increased emphasis on creating and maintaining a powerful navy, able to travel to and secure ocean areas far removed from their native shores. This period also witnessed an explosion of seaborne commerce, which dictated economic development, and an ever-

expanding desire to control the seas, which determined wartime superiority. Coast guards and navies became highly visible instruments of maritime enforcement and diplomatic negotiation.

For the United States, the oceans have always been tied to U.S. national security and defense. Initially, the oceans were a buffer from the military power and the conflicts of European nations. With the development of U.S. naval capabilities in the late nineteenth century and the subsequent results of the Spanish-American War, the United States used the oceans to project power to distant countries. [Ref. 31:INTERNET]

The Spanish-American War of 1898 marked a new beginning for the concept of oceanic sovereignty and the importance of controlling the seas. To protect from foreign naval aggression and to protect marine resources, coastal states held a succession of international conferences which addressed the issue of the extent of oceanic claims. In 1930, the international debates focused on whether the territorial sea should be three or four miles.

However, weapons developments and tactics of World War II changed fundamentally the debate on territorial seas by expanding the distance from the coast that a sovereign state considered necessary for national security. Six nautical miles was no longer considered acceptable since

missile and naval gunfire ranges far exceeded that distance. Nations sought protection for their shores through constitutional amendments and national laws that extended their territorial waters and control of the seas.

James Wang, in his book *The Handbook on Ocean Politics and Law*, considered the single most significant event that affected both the direction and scope of the Law of the Sea in the aftermath of World War II to be President Harry S. Truman's 1945 proclamation on U.S. maritime interests. [Ref. 32:p. 25] The Truman declaration, which extended the U.S. territorial claim to the continental margin existing under adjacent seas out to 200nm, set a negative precedent in the debate over who owns the seas. In addition to national security concerns, this declaration was initiated to protect the rights of the United States to exploit offshore mineral and energy resources. A spate of similar declarations from Latin American nations immediately followed that of President Truman.[9]

Alfred Hu concluded that President Truman's actions led to a domino effect in oceanic sovereignty claims, especially in Latin America. Hu stated, "In order to protect its own sea resources and to 'follow' the precedent established by the United States...Chile was the first state to make the

[9] See Appendix C for a synopsis of Latin American responses to President Truman's maritime declaration.

unilateral claim to a 200nm zone for fisheries..." [Ref. 33:p. 23]." The Truman Proclamation was consistent with Hu's belief that great powers often tend to place international law in the context of their own national interests and subject to their own interpretations.

However, other coastal nations interpreted oceanic sovereignty rights quite differently than the maritime powers that possessed substantial distant-water fishing fleets. To protect their perceived oceanic sovereign rights, the Andean nations of Ecuador, and Peru joined Chile and signed the Declaration of Santiago in 1952, extending their territorial waters out to 200 nautical miles.

In 1948, Nicaragua and Costa Rica followed suit with these Latin American nations staking their claims to the seas. Nicaragua added a constitutional provision and Costa Rica enacted a national law that provided for expanding their claims to oceanic territory and resources.

This series of declarations and constitutional amendments illustrated the presence and, to some extent, nationalistic tendencies prevalent throughout the Western Hemisphere. Adding credibility to their words, the governments of Peru and Ecuador engaged U.S. commercial fishing fleets in 1955, 1969, and 1971 when those fleets were perceived as violating the territorial integrity of these South American nations. Other noteworthy fishery-

based conflicts occurring after World War II include: the 1971 "Cod Wars," a series of naval disputes between Iceland and the United Kingdom in the North Atlantic; the 1986 Sino-Argentine "Squid War" in the South Atlantic; and numerous FBCs of the South China Sea between China, the Philippines, Malaysia, Vietnam, and Thailand.

History has thus shown that nation-states will engage in armed conflict to protect against incursions into their claimed territorial waters. Since the conclusion of World War II, such conflicts over ocean areas have averaged about five per year as nations realize the importance of marine resources and seek to enforce their oceanic sovereignty claims [Ref. 34:p. 186]. It is paramount for U.S. naval leadership and intelligence personnel to be aware of this phenomenon of oceanic sovereignty, and more specifically 'fights over fish,' since future naval operations may originate from such disputes over ocean area ownership.

B. SCIENTIFIC AND TECHNOLOGICAL ASPECTS

The most important species of biological marine resources for food and revenue are tuna, salmon, sardine, shrimp, lobster, and crab [Ref. 35:p. 58]. With the exception of tuna and salmon, most of these commercially viable fish species are found within 200 miles of coastal landmasses. The implications of this natural phenomena is

exaggerated in the case of those nations, including Chile, Ecuador, and Peru, that claim sovereign ownership of the ocean out to 200nm. The 200nm territorial sea declarations of Chile, Ecuador, and Peru are in direct conflict with the provisions of the UNCLOS III, which allots only 12nm of territorial waters to each coastal nation. For these three nations, however, the economic bounty of the sea is viewed overwhelmingly in terms of marine resources and not mineral wealth. To this end, the governments of Chile, Ecuador, and Peru defend their oceanic sovereignty claims by stating that other nations, possessors of more substantial continental shelves, have the option of mineral exploitation of the sea whereas they do not. These governments view ownership of marine resources, out to 200nm, as compensatory because of their lack of mineral wealth capability. However, all the world's maritime powers disagree with this logic and cite the UNCLOS III in their opposition. The maritime powers reason that if all nations sought similar 200nm territorial waters, then international seaborne trade would be restricted, and thus the world economy would become unstable. This dichotomy of views on an international basis leads to the incontestable prediction that fishery-based conflicts will reoccur.

Technologically, the importance of Latin American nations in the study of fishery-based conflicts stems from

the oceanic phenomenon called 'coastal upwellings.' Professor Matthias Tomczak and scientist J. Stuart Godfrey explain, "Coastal upwelling systems are among the most important fishing regions of the world oceans because they offer optimum conditions for the production of the foods necessary for fish reproduction and growth." [Ref. 36:p. 144]

Many commercially viable fish, not including migratory species such as tuna, concentrate in coastal areas because of this presence of feed organisms and desirable water temperatures caused by these coastal upwellings. Due to the periodic phenomena of coastal upwellings, the waters of Chile, Ecuador, and Peru represent the most productive and lucrative fishing areas of the world [Ref. 37:p. 144]. The impact of the Peruvian coastal upwelling was confirmed in the UN Food and Agriculture report entitled *Global Fishery Production in 1994*. This report stated, "The production increase in marine waters [7.3 million mt from 1993-94] was due almost entirely to higher capture fishery yields which were up 4.9 million mt, mainly attributed to anchoveta catches by Peru and Chile..." [Ref. 38:INTERNET].

An additional technological factor surrounding marine resource production is the conclusion of leading scientists that 90 percent of the ocean's living resources are to be

found on the continental shelf [Ref. 39:p. 12]. The extremely narrow continental shelves off Chile, Ecuador, and Peru, cause the vast fishery resources of their territorial waters to be concentrated close to the shoreline, creating a productive and lucrative fishery industry. The combination of narrow continental shelves and coastal upwellings has produced the most fertile areas for living resources in the world's oceans.

However, the coastal upwelling areas of the oceans, depicted in Figure 2, are not evenly distributed. This natural inequity induces conflict between major industrialized nations and developing nations. The maritime powers, with distant-water fishing fleets and large populations to feed, intrude upon the developing coastal states of Africa and South America (Chile, Ecuador, and Peru) which have coastal upwelling naturally occurring within their economic exclusion zones.

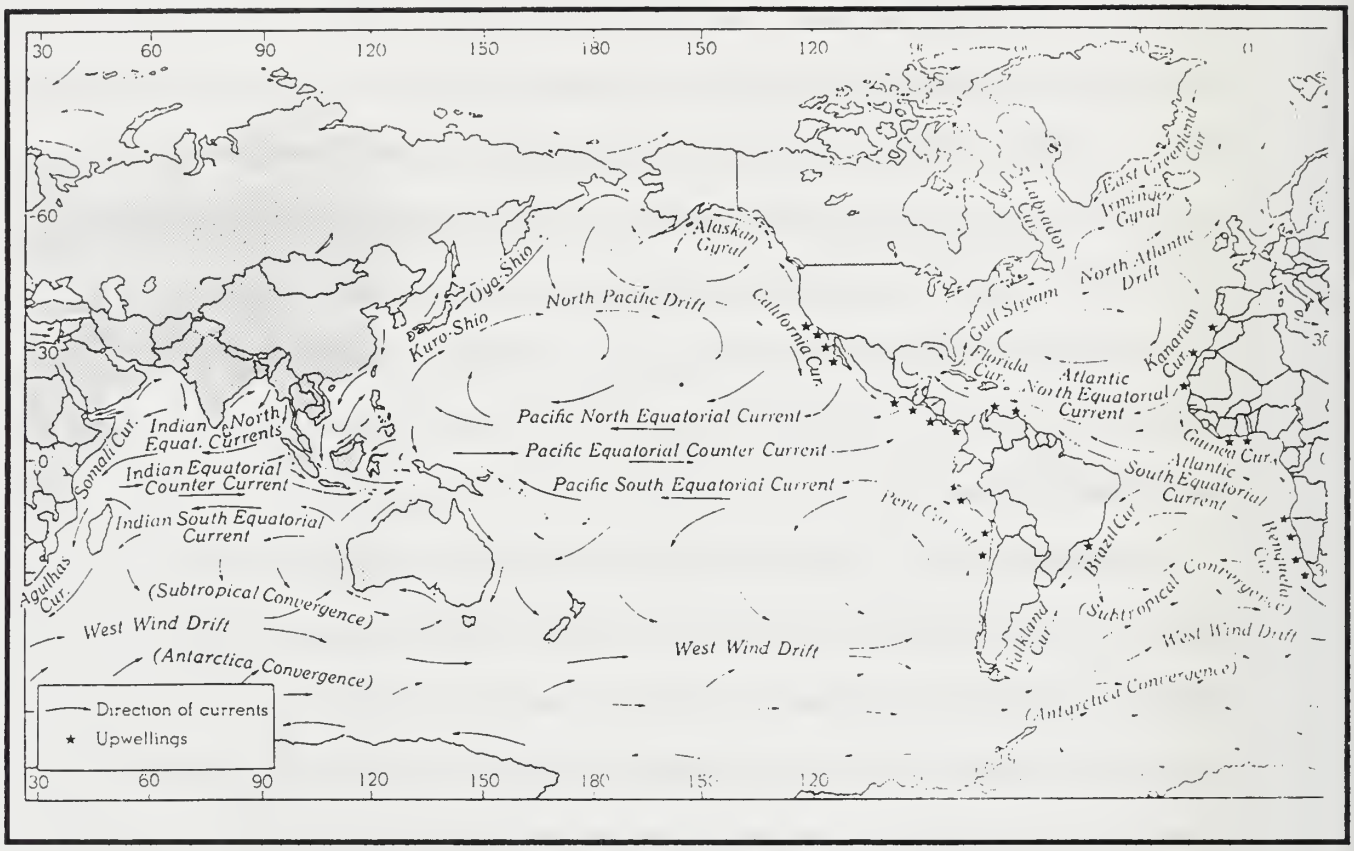

Figure 2. Ocean Currents and Upwellings During the Northern Winter. [Ref. 40:p. 58]

The UN's Food and Agriculture Organization reported in its *State of Food and Agriculture 1992* that the fertility of these coastal areas caused a "redistribution of the seas' wealth ... with a few coastal states gaining large benefits and a few distant-water fishing states incurring large losses." The UNFAO added that technical developments allowed for the rapid growth in distant water fishing capabilities of industrialized nations. [Ref. 41:INTERNET] Of these developments, the proliferation of huge factory

ships, pictured in Figure 3, capable of processing the catches of fishermen while still at sea, contributed greatly to the over-exploitation of several of the world's most productive fisheries. These gargantuan vessels also increased tensions between coastal states and the maritime nations to which they belonged. [Ref. 42:INTERNET]

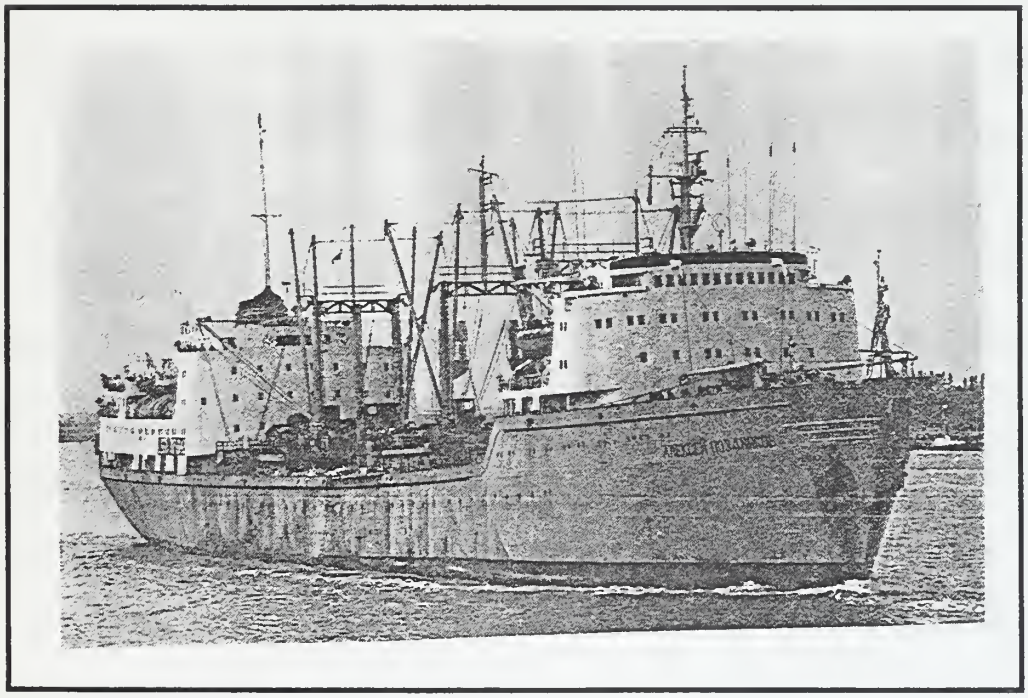

Figure 3. Russian Factory Fishing Vessel.
[Ref. 43:p. 441]

1. Chilean Fishery

With a coastline of 4,022 miles and a population of 13.7 million, Chile depends heavily on revenue and employment from the fishery industry. Hence, the Chilean government considers protection and management of its ocean resources a vital national priority.

According to World Bank statistics, the Chilean population depended on fishery products for approximately 7.8% of their total daily protein requirements [Ref. 44:p. 169]. The importance of the ocean resources to the Chilean economy is illustrated in the 1992 assessment that Chile derived over $1.1 billion from the export of fishery products [Ref. 45:p. 357].

Further, the UNFAO *1994 Global Fishery Production* report stated that the global production increase of fishery products in 1993, up 4.9 million metric tons from 1992, was mainly attributable to higher anchoveta catches by Peru and Chile. [Ref. 46:INTERNET]

2. Ecuadorian Fishery

Ecuador's fishery industry, specifically its shrimp industry, is one of the most robust most volatile in the world. The economic bounty of this industry for Ecuador accounts for over $500 million of export earning annually

and represents 16% of the Ecuadorian Gross Domestic Product [Ref. 47:INTERNET].

Marine resources, both mineral and biological, have always had significant political and economical implications for the Ecuadorian people. In addition to fisheries, the exploitation of ocean areas for oil production is vital to the Ecuadorian economy.

3. Peruvian Fishery

The ocean areas of southeastern Pacific represent an vital economic environment for the Peruvian government. Vast shoals of anchovy, tuna, and several varieties of other valued fish are present in these waters making it one of the world's richest commercial fisheries. The Peru/Chile coastal upwelling system led to Peru's 1993 fishmeal production of 1.6 million metric tons, reestablishing Peru as the world's largest producer [Ref. 48:p. 160].

The natural volatility of fisheries adds to the complexity fishery revenues play in the Peruvian economy. The Peruvian government must remain diligent in protecting the health of their ocean areas to prevent another near-total collapse of the lucrative anchoveta fishery (shown in Figure 4). Despite the vast resources of the southeastern Pacific, human greed managed to destroy the basis of what before 1973 was the largest fishery in the world.

Overfishing and natural variability of the upwelling environment cause by the El Nino[10] weather phenomenon brought about the collapse of an industry. [Ref. 49:p. 98]

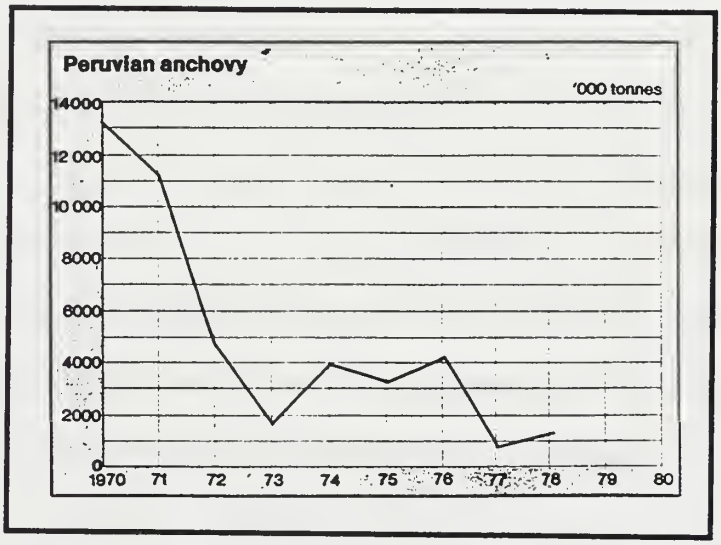

Figure 4. The Collapse of the Peruvian Anchoveta Fishery. [Ref. 50:p. 99]

The administration of current Peruvian President Alberto Fujimori is acutely aware of the economic difficulties they will face if ocean resources are exploited to previous levels. Therefore, protection of their "territorial seas" remain a vital national security issue.

C. SUMMARY

Historical and scientific information only serves as a basis for analyzing the oceanic stakes that induce nations to fight over oceanic resources. The annals of seaborne

[10] The El Nino weather phenomena occurs irregularly, warming the water flow in the Peruvian Current, greatly reducing the production of feed for commercially viable fish species, rising the surface temperatures, and causing severe rainfall.

trade have shown that nations will defend militarily their national economy and prestige. The technical points surrounding oceanic sovereignty clarify the value of marine resources to humanity in monetary, environmental, and nutritional terms.

To take a discussion deeper, theory and hypotheses must be presented and tested. If political stability and naval enforcement capability play a role in determining the likelihood of fishery-based conflict, then these two factors can be the basis of new international relations theory. Development of hypothesis statements concerning environmental-based conflicts assist in developing national strategies to avoid lethal naval engagements.

III. HYPOTHESES AND THEORY

As the previous historical descriptions show, the nations of South America greatly value the oceanic resources and those adjacent to their coasts. However, historical descriptions of the value of and tensions over oceanic resources do not explain when and why conflicts erupt and therefore, theory must be presented and analyzed.

A. PUZZLE

The major research questions this thesis seeks to answer are:

1. Will over-exploitation of ocean resources cause an international or intra-regional conflict involving Chile, Ecuador, and/or Peru?

2. Does a nation's degree of political stability have a role in determining whether fishery-based conflicts will (re)occur? Will political instability cause the Chilean, Ecuadorian, Peruvian governments to deploy their naval forces against other nations?

3. Are the naval forces of Chile, Ecuador, and Peru proficient enough to accomplish their missions of defending their national maritime claims against either inter-regional or external actors?

B. METHODOLOGY

Using the case study method of comparative research, this thesis posits that these questions of oceanic sovereignty have widespread implications to the global fishing crisis and the 21st century international relations of western South America. These case studies and an analysis of raw economic and political data help to determine the applicability of the "Small Navy Theory".

More specifically, the dependent variable in this paper is 'the likelihood of fishery-based conflicts' with the independent variables being:

1. The degree of political stability present in Chile, Ecuador, and Peru; and

2. The capability of Chilean, Ecuadorian, and Peruvian navies to enforce their national maritime claims and the provisions of their 1952 Declaration of Santiago.

C. CURRENT DEBATES

Before the competing theories of oceanic sovereignty are presented, the current debates raging among the different international actors involved in global resources management must be understood. These debates generally are categorized as either international ('North-South') or intraregional ('North-North', 'North-South', or 'South-South').

1. International Conflicts

In the international debate over global resources, the developed countries of the 'North' stress that protection of the global environment benefits all humankind. The governments and non-governmental organizations (NGOs) of the North encourage energy conservation, limits on population growth, and recycling of waste as means to make the world "greener". Through domestic tax provisions, foreign debt-for-nature exchanges, and sometimes implied uses of force, the North attempts to sway the debate. However, the North in general and the United States specifically are faced with a dilemma on environmental issues. First, the North tries to avoid exerting environmental hegemony over nations of the South, many of which only recently cast off the yoke of 'Northern' colonialism within the last century. Secondly, the North repeatedly stresses its support of the sovereignty of nations and the right of nations to determine their own destiny.[11] Lastly, the citizens of the North are, per capita, the largest exploiters of the global environment. The South's complaints of Northern exploitation are summarized by Donald R. Kelley, "Their countries [U.S., Japan, and the former USSR] have an impact on both the local

[11] Richard C. Knott, Commander, U.S. Navy (Ret), "Who Owns the Oceans", in *Naval Proceedings Magazine*. CDR Knott explains that a state, however, is thought to possess the inherent right to defend itself and to provide for the safety of its citizens and that, consequently, it became generally accepted that a coastal state has the right to exercise sovereignty over a narrow band of the sea adjacent to its coast for reasons of national security.

and global ecosystems far out of proportion to their population sizes, often have aggressive nationalist traditions, and take pride in being 'great nations' as measured by growth rates, economic influence, and military power. [Ref. 51:p. 9]

An additional argument presented by the supporters of the Northern development advocates is that the environment is being manipulated by the South for political gains. C. Fred Bergsten, in his 1974 *Foreign Policy* essay, "The Threat is Real," theorized that raw materials are being turned by the less developed countries into new and effective instruments of influence to be used to enhance their position and advance their economic and political claims vis-a-vis the industrialized world. [Ref. 52:pp. 84-90] Under the banner of world environmental survival, the nations of the South have re-negotiated their massive foreign debts through debt-for-nature exchanges.

The global competition for such limited natural resources has also been posited to have benefited the developing countries in two important ways: exploitive methods of resource extraction used by more developed countries during the colonial period are no longer acceptable; and, respect for the sovereign rights of every nation is a generally accepted principle among democracies.

Hence, the Southern nations, with weaker industrial bases and smaller populations, usually have a surplus of natural resources with respect to the needs of their populations. This surplus of resources equates to financial and political leverage in environmental debates. In contrast, developed countries, more often than not, are in a resource deficit precisely because of their insatiable demand for raw materials, a demand that simply reflects their more advanced stage of industrialization. [Ref. 53:p. 84-90]

From the point of view of the South, the developed North looks like a hypocrite. The South counters the North's criticisms of Southern environmental exploitation by pointing out how the North exploited their own environments in the name of agriculture, then later, industrial development. The exploitation of the land, air, and water of the North propelled the North into their current lofty position as developed nations. Now that the North has arrived, so to speak, these developed nations want to restrict environmental usage worldwide. This, the South contends, is the North's attempt to keep the rich, rich, and the poor, poor.

Supporting the South's position, Indira Gandhi, observed at the Stockholm Conference "that when it comes to the depletion of natural resources and environmental pollution, the increase of one inhabitant in an affluent

country, at his level of living, is equivalent to an increase of many Asians, Africans, or Latin Americans at their current material levels of living." The biologist Wayne Davis, in Donald R. Kelley's edited volume *The Economic Superpowers and the Environment*, estimated that an average American, in the course of his life, will consume at least 25 times more of the world's resources and generate 25 times more waste than an average Indian or Chinese. [Ref. 54:p. 9]

Developing countries also argue that they have no choice but to use the environment in less than efficient means. According to environmental scholar David L. McKee, "Too often in developing countries, quality of life is primarily a question of having enough food and basic shelter." [Ref. 55:p. 188] In industrialized nations, improving the quality of the natural environment is perceived as a way of improving the quality of life. In several Latin American nations, public and commercial entities perceive protection of the environment as an expensive luxury, well beyond their financial means.

Therefore, the South's perspective is that the management of the environment and the exploitation of sovereign marine resources should be the decision of the host nation and not of other nations. Marine boundaries,

the focus of this study, exacerbate this North-South tension because such boundaries often overlap, making it more difficult to secure a nation's aquatic territorial integrity.

In Vicente Sanchez and Calestous Juma's edited book *Biodiplomacy: Genetic Resources and International Relations,* Hanne Svarstad summarizes the interaction and dependencies the North and South have on each other. Figure 5 graphically depicts this relationship wherein the North is dependent on the South for natural resources and pressures the South to conserve these resources. The North also weighs heavily in the debate since the South desperately seeks technology transfer and money, which the North continues to control.

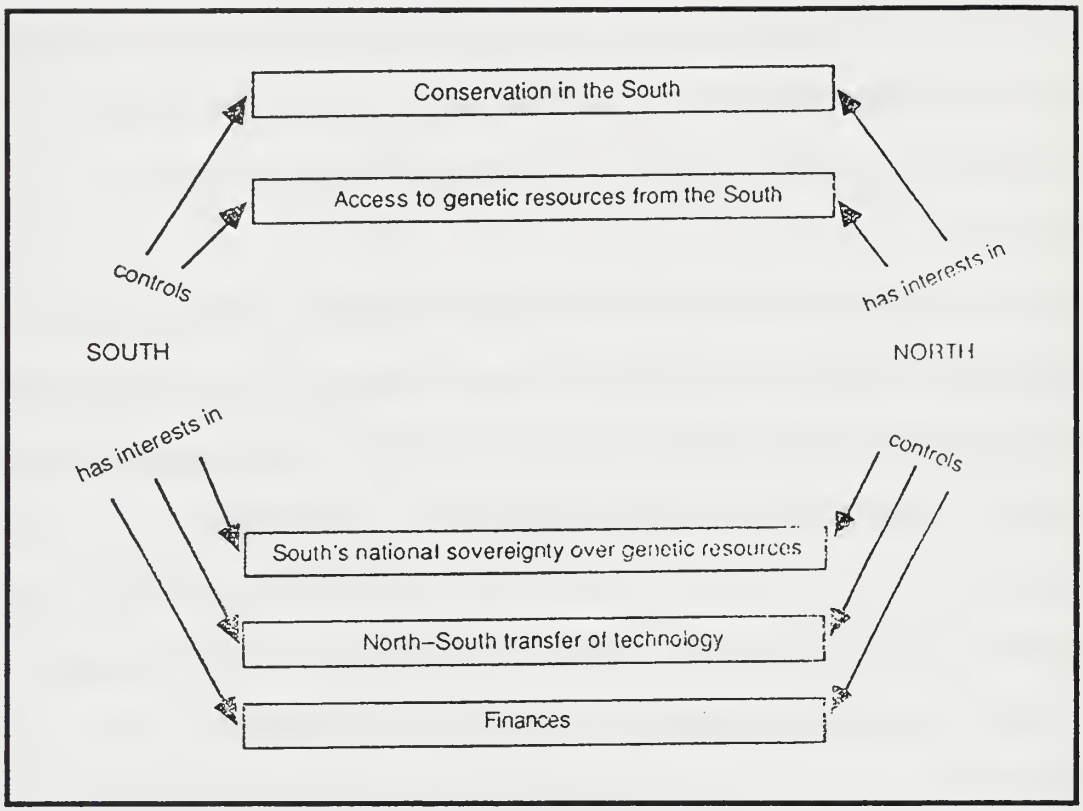

Figure 5. Biodiversity Exchanges Between the North and South. [Ref. 56:p. 47]

2. Intra-Regional Conflicts

The second debate of resource conflict has an intra-regional focus. It exists between neighboring states, whether they are North versus North, as in the case of the acid rain controversy between the United States and Canada, or South versus South, as in the Beagle Channel dispute between Chile and Argentina[12] or the conflict over the Gulf of Venezuela between Colombia and Venezuela.[13]

[12] The dispute over ownership of the islands in the Beagle Channel involved competing geopolitical and strategic calculations, access to possible petroleum and other resources, and the status of conflicting claims in the Antarctic. In 1971, Argentina and Chile agreed to submit their century-old dispute to binding arbitration as prescribed in existing bilateral treaties. The disputants were on the verge of war in

Essentially, the intra-regional debate pits the economic claims of Country A against the sovereignty, real or perceived, of Country B. Inland waterways such as the South American river Rio Parana illustrate how one nation, Brazil, perceives its national energy needs as more important than the sovereign right of its neighbor, Argentina, to the benefits of the shared river.[14]

The degree of forcefulness nations project in the intra-regional debate over environmental resources is often dependent on size and influence. In the intra-regional arena, the smaller regional country usually pleads its case to supranational entities of the international community. The country seeks to raise the ire of the world against its dominating neighbor who is infringing upon the internationally-accepted principles of sovereignty and self-determination.

As previously discussed, the debates regarding environmental issues have both international and intraregional foci. The international debate, North vs. South, has a much lower chance of resolution than the

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late 1978 when the Vatican observer to the Organization of American States (OAS) urgently proposed papal mediation, readily accepted by both countries on 8 January 1979. Hudson, Rex A. and others, *Chile, A Country Study*, Library of Congress, Washington, D.C., 1994, pg. 268.

[13] Colombian and Venezuelan oceanic disputes centered on access to the offshore oil resources of their shared coastal region, the Gulf of Venezuela. Several shooting incidents in the gulf in the 1981-86 period led both countries to mobilize troops along the border and engage in a minor arms race.

[14] A major source of competition between Brazil and Argentina has been influence over the smaller, weaker so-called buffer states (Uruguay, Paraguay, and Bolivia) bordering both nations.

intraregional, South vs. South, since most of the nations of South America for the most part, share a common language, culture, and history.

Latin America specialist G. Pope Atkins counters this view of South American solidarity, describing the subregion as an area of long-standing local conflict with roots in the colonial period. The legacy includes a long list of territorial and boundary disputes, national power struggles that have led to warfare and threats of war, and claims of sovereignty and competition for resources. Therefore, the threat to Latin America from external regions must be perceived to be great enough to overcome the perennial suspicions and animosities among Chile, Ecuador, and Peru. [Ref. 57:p. 70]

D. THEORY

Similar to the geographically-focused debates, there exist competing theories relating to the cause and solutions to environmental degradation and competing oceanic sovereignty claims. In their comprehensive textbook, *Ecoscience: Population, Resources, Environment*, Stanford professors Paul and Anne Ehrlich categorize the competing theoretical viewpoints on the management of natural resources as "Cornucopians" and Neo-Malthusians.

1. "Cornucopians"

According to the Ehrlichs, the Cornucopians often are preoccupied with the apparent theoretical capacity of Earth to supply a large (but fixed) population with basic raw materials over long spans of time. The Cornucopians argue that technological exploitation of the vast stores of minerals available at low concentration in seawater and in the first few miles of Earth's crust will provide energy sources far into the future. Thus, population and industrial growth is not viewed as an immediate threat to the health of the planet. However, explain the Ehrlichs, "even ardent Cornucopians do not postulate continued population growth beyond a few more doublings, however, for that many people could not be sustained under any assumptions." [Ref. 58:pp. 953-54]

In the INSS *Strategic Assessment 1995* chapter on population, resources, and conflict, Patrick Clawson states that "In coming decades, population shifts and resource pressures are more likely to exacerbate existing political conflicts rather than to directly trigger them." [Ref. 59:INTERNET]. Clawson puts himself squarely in the Cornucopian camp with his opinion that "The balance between population, resources, and the environment is likely to improve in the next 20 years as a result of decreasing

population growth rates and increasing attention to environmentally sustainable development." [Ref. 60:INTERNET]

2. Neo-Malthusians

Countering the position of the Cornucopians, the Neo-Malthusians argue that the Earth is nearing its maximum capacity to sustain healthy human life. The fundamental precept of Neo-Malthusian viewpoint is that the rapid exhaustion of nonrenewable resources and pollution on a widespread scale, signals an end to stable national economic growth. Additionally, such uncontrolled usage of resources adversely affects 'quality of life' for all the Earth's inhabitants. As Michael Renner states, "environmental degradation imperils a nations' most fundamental aspect of security by undermining the natural support systems on which all of human activity depends."[Ref. 61].

As influential proponents of the Neo-Malthusian approach to environmental management, Stanford professors Paul and Anne Ehrlich present the key defects in the Cornucopians' vision as:

- The presumption that advanced technology will make energy very cheap;
- The presumption that abundant, cheap energy, if available, would prove to be sufficient;
- The serious underestimation of the degree of environmental degradation that would be generated by the proposed technologies;
- The even more serious underestimation of the impact on human well-being that major environmental disruption portends. [Ref. 62:pp. 953-954]

On the other hand, the Cornucopians use empirical economic data to criticize the Neo-Malthusian viewpoint. According to the INSS *Strategic Assessment 1995*:

> The common view is that the world is running out of many natural resources, yet, in the view of most economists, the evidence suggests that mineral and agricultural products are, if anything, becoming more readily available. Economists look at the real (inflation-adjusted) price as the best measure of economic availability or scarcity. Over the last 200 years, the long-term, inflation-adjusted price trends for a whole series of mineral and agricultural products have been stable and declining. [Ref. 63:INTERNET].

A review of oceanic sovereignty literature confirms that both the Cornucopian and Neo-Malthusian theoretical perspectives are represented by accomplished scholars.

In addition to theories on environmental degradation, social science theories on military usage in resource conflicts are needed.

3. "Small Navy" Theory

With respect to the outcome of fishery-based conflicts, one would expect that countries with powerful navies would win. However, that outcome has not always been forthcoming. Naval forces of smaller nations have triumphed not from their tactics or superior warfighting abilities but often from default. The larger, more powerful nations simply chose not to fully defend their maritime claims with the overwhelmingly superior force of their navies. Domestic

politics, not the potential power of naval forces, has determined the actual outcomes of disputes involving the use of naval forces.[15]

Since a small navy usually operates within the national 200-mile exclusive economic water limits, the legal context of the 1982 UNCLOS thus defines the scope of small navy's operations. A small navy, therefore, is defined as one which is so designed, planned, prepared, and constructed to protect and enforce national rights, as conferred by the UNCLOS III, within the 200nm economic exclusion zones.

These "small navies", as categorized by naval scholar Ken Booth, make up more than 90% of the world's naval forces. The main objectives for these "small navies" are the defensive patrolling of coastlines and the enforcement of regulations in their contiguous waters, rather than the anticipation of global contingencies. [Ref. 64:p. 121]

As noted in Chapter One, most post-World War II naval theory and analysis has grown out of the experiences of "global navies." Massive blue-water naval operations that pitted the forces of two warring maritime powers served as the model for analyzing naval tactics, strategy, and policy. Except for amphibious assaults, analysis of coastal operations in littoral regions was not deemed valuable to the traditional national security mission of global navies.

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[15] The case studies in the following analysis chapter clarify this statement.

Now that truly effective blue-water naval warfighting capability rests solely in the hands of a few democratically-controlled allied nations, the importance of analyzing blue-water operations is minimized.

The protection of the offshore estate has been identified by maritime scholar Geoffrey Till as one of the new tasks for these small navies. As Till observes, "the maritime strategists have no advice to offer on...matters connected with the protection of the offshore estate." Till adds, "naval policy makers will find little in the established literature of maritime strategy to help them make their choices." [Ref. 65:p. 203-209]

In his Ph.D. dissertation on naval policy and fisheries, Alfred Hu identified three types of disputes: (1) strife over contentious national claims of fisheries (maritime); (2) employment of naval forces employed; and (3) tensions over other national interests e.g., marine-legal position, foreign policy, regional security, national prestige that are involved and entangled with fisheries disputes. [Ref. 66:p. xii]

Hu's analysis of major fisheries-based conflicts confirms the contention of Small Navy Theory that the potential power of naval forces does not always correspond to actual outcomes of disputes involving the use of naval forces. Hu adds, "... traditional naval theory developed

from and centering on global navies offers little guidance to the majority of navies in the world -- the small navies." [Ref. 67:p. xiv].

The navies of Chile, Ecuador, and Peru represent this type of "small navy," therefore the ability of these navies to control oceanic and coastal regions is a variable under investigation in this study.

E. VARIABLES

The dependent variable in this paper is "the likelihood of fishery-based conflicts." The independent variables are the level of political stability within specific South American nations and the capability of South American navies to enforce their maritime claims.

In general, the nation-state views its oceanic and coastal regions as sovereign territory, not unlike its land boundaries. Therefore, intrusion into claimed oceanic and coastal territorial waters forces the government to respond diplomatically at the least, and militarily if able.

F. HYPOTHESIS STATEMENTS

Based on history, economics, and politics, hypothesis can be created and tested using current and past evidence of resource conflicts. The following statements apply not only to fishery-based conflicts but to any conflict over natural resources:

1. *As a nation's degree of political stability increases, then the likelihood of a FBC decreases.* National leaders view their self-delineated or UNCLOS III-mandated ocean boundaries as sovereign territory. Therefore, intrusion into these territorial waters forces the civilian government to respond diplomatically or militarily to its perceived external threat. By acting on their nationalistic rhetoric, politicians can capitalize on the perception of strength and independence from foreign influence. In the nations of Latin America there is an especially dire need for politicians to avoid being characterized as a puppet of former colonial or hegemonic powers. The deterrence of foreign aggression, in the form of deploying naval forces to protect ocean areas, is then used as a domestic political issue for a head-of-state facing reelection and popularity polls.

The political desire to prop up weak administrations can lead politicians of smaller nations to commit their limited naval forces against larger nations. To add to their national insecurity, the economies of these Andean nations are intimately tied to the sustainment of productive ocean fisheries. If overfishing leads to a collapse of

these fisheries, a resulting employment crisis will force local, municipal, and national political leaders to react.[16]

2. *As foreign exchange earnings from fishery products increase, then likelihood of FBCs increases.* As a nation's government leaders and population realize the importance of substantial export earnings derived from fishery products, the government will be more likely to commit naval forces to protect its maritime interests. In addition to export earnings, the amount of employment that a nation's fishery industry provides is an economic factor that can induce leaders to deploy naval forces to enforce oceanic territory claims.

3. *If fishery protection capability is relatively dissimilar among protagonists, then the likelihood of FBCs is increased.* If the fishery protection capability of two nations is dissimilar (i.e., United States vs. Ecuador or United Kingdom vs. Iceland), then the weaker nation will be inclined to conduct an aggressive naval action to improve national pride and possibly to bolster the domestic political standing of the head-of-state. Additionally, the political influence and economic clout of the maritime powers can resolve FBCs before a military solution becomes

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[16] Peter Weber provides this causal linkage description in his essay in Lester Brown's, State of the Wold 1995, W.W.Norton & Company, New York, 1995, pgs 24-36.

necessary. This hypothesis is in accordance with the principles of the "Small Navy Theory".

4. *If fishery protection capability is relatively similar amongst protagonists, then likelihood of FBCs decreases.* If the fishery protection capability of two nations is similar, then the nations will realize the detriment of a prolonged naval conflict and not consider the economic benefits worth the potential loss of life. Therefore, nations with similar naval capabilities will seek methods other than direct combat to resolve fishery-based conflicts, i.e. international arbitration.

5. *If UNCLOS III provisions and bilateral agreements are respected by both coastal and distant-water fishing nations, then the likelihood of FBCs decreases.* If nations consider the UNCLOS III and their own bilateral fishing agreements as binding international law, negotiation and arbitration have a higher probability of success in resolving FBCs than military heavihandedness.

G. SUMMARY

This chapter laid the foundation for the analysis of causal factors of fishery-based conflicts in western South America. The fundamental research questions were presented and can be summed in the overly-simplistic question, "Who owns the oceans?"

Current international relations debates regarding environmental issues usually fall into the sphere of international or intraregional focus. In the international arena, the developed nations are pitted against the developing nations while the intraregional debate places neighboring states against each other regardless of their level of economic development.

Regarding the use of natural resources, the theories of the "Cornucopians" and the Neo-Malthusians make different assumptions about scarcity and thus arrive at different predictions on the potential for conflict. The Cornucopians view the world has having the ability to sustain perpetually human life through a combination of resource exploitation and technological development. The Neo-Malthusians recognize the limits of the Earth's capacity sustaining life through tangible evidence including resource over-exploitation, environmental destruction, and an ever-increasing world population.

Political and military debates surrounding resource exploitation and oceanic sovereignty include Ken Booth's observation that small navies, sometime by default, defeat larger, more powerful naval forces.

Lastly, this chapter provided hypothesis statements as a starting point for analyzing causal factors in environmentally-based conflicts.

IV. ANALYSIS OF CASES

Oceanic sovereignty conflicts are characterized by concerns over access to commercial shipping lanes, exploitation of living and non-living marine resources, and island ownership. The Falklands/Malvinas War of 1982 between the United Kingdom and Argentina arguably can be said to have been an example of the extent to which a nation will go to maintain or recapture their perceived sovereignty of the islands and ocean areas.

The study of resource conflicts and oceanic sovereignty issues represents a unique challenge in social science research. The unit-of-analysis is not the nation-state or individual, as is the case in traditional security studies research, but the natural resource in question or the perceived ownership of disputed resources. Therefore, theories and predictions based on conventional national security concepts (i.e., balance of power, containment of Communism, and gunboat diplomacy) are not always applicable in evaluating resource-based conflicts. For example, Japan has absolutely no national security concern of an invasion by amphibious forces from the Chilean Navy, yet actions by the Chilean government to alter the world's fish supply would have severe national consequences to such a seafood-dependent nation as Japan. Therefore, case studies of

resource-based conflicts must be examined under the framework of environmental, political, and economic influences.

A. CASE STUDIES

The case studies chosen for this thesis include two examples of fishery-based conflicts involving Andean nations and one example of an out-of-area FBC. The 1972 'Cod War' between Iceland and the United Kingdom was chosen to determine if political stability and naval enforcement capability play a significant role in fishery-based conflicts involving other than South American nations. Additionally, selection of an out-of-area case can further test if the 'Small Navy' theory applies to two historically and culturally diverse regions; western South America and Northern Europe.

1. The U.S.-Peruvian "Tuna War" of 1969

In the pre-dawn hours of February 14, 1969, an English-built Peruvian PT boat armed with machine guns and 20mm cannon began shadowing U.S. tuna vessels 40 miles off Peru's coast. At dawn, the naval vessel collided with one of the U.S.-flagged vessels in an attempt to board her. The Peruvians then landed a boarding party which guided the damaged San Diego-based fishing boat to a Peruvian port

where its captain was forced to buy a license and fined, the total came to about $10,500.

Meanwhile, another Peruvian naval vessel headed for the fishing boat, San Juan. Failing to board the elusive ship, the Peruvians fired between 40 and 60 machine gun bullets into her upper parts. Gun fire hit the skiff, destroyed windows in the pilot house, damaged the vessel's radio, sprayed the port side of the crew's quarters, damaged the radar antenna and barely missed the captain. Suddenly the pursuit ended, either because the Peruvian commander did not want to make the incident any worse, or because other American vessels in the vicinity (there were about five other tuna clippers nearby) began moving in threateningly. [Ref. 68:pp. 8-9]

It is interesting to note that in Thomas Wolff's description of this naval dispute, Peruvian units were deployed to protect their territorial waters but did not engage the commercial fishing boats. Most probably, Peruvian reluctance signaled either a lack of naval warfighting ability or a fear of drawing the U.S. Navy into the skirmish.

a. Political Stability

Peruvian political stability at the time of the 1969 'Tuna War' with the United States was at a relatively

low point in the modern history of that country. Only a year prior, the armed forces of Peru, under the command of General Velasco Alvarado, had overthrown the reformist government of Fernando Belaunde Terry. Velasco immediately instituted sweeping changes to recapture state control of vital industries from the hands of foreign interests. At the beginning of his administration in 1968, 75% of mining, 50% of manufacturing, 50% of the commercial banking system, and 33% of the fishing industry were in the hands of foreign entities. [Ref. 69:pp. 50-51]

In addition to domestic issues, General Velasco also completed important reforms of Peruvian foreign policy. Peru led the way in establishing tighter intraregional relations with the creation of the Andean Pact, an economic trading bloc composed of Bolivia, Colombia, Chile, Ecuador, and Peru. To further bolster their regime, strengthen the Peruvian economy, and distance itself from the political and economic influences of the United States, the Velasco Administration "moved to diversify its foreign relations by making trading pacts with the Soviet Union and East European countries, as well as with Japan and West European nations." Another successful initiative of Velasco was to defend the Peruvian claim of territorial seas 200nm into the Pacific Ocean. [Ref. 70:p. 51]

The degree of political instability present in Peru in 1969 suggests that, according to previously-mentioned hypotheses, the likelihood of a fishery-based conflict was high during the Velasco years. This extremely high degree of political instability may have encouraged government leaders to show resolve by deploying naval forces against a foreign power 'invading' perceived Peruvian oceanic territory.

b. Naval Enforcement Capability

From 1968-1972, Peru had a naval enforcement capability far inferior to that of its 1969 fishery-based conflict adversary, the United States. The Peruvian Navy at the time was primarily a coastal and riverine force with limited ocean-going capability. The coastal patrol boats of the Peruvian Navy were absolutely no match militarily for the U.S. Navy or U.S. Coast Guard.

However, the Peruvian Navy successfully defended its maritime claims and forced foreign commercial vessels from their waters. Commercial fishermen from the United States and other nations had to refrain from fishing Peruvian waters or risk seizures and substantial fines. Only through subsequently enacted bilateral fishery agreements were foreign fleets safe to freely fish the disputed waters off the Peruvian coast.

Therefore, from a naval standpoint, Peru 'won' this 'Tuna War.' However, it was a shallow victory since the outcome was unquestionably due to the fact that the vastly superior U.S. Navy was not directed to engage the Peruvian naval forces harassing U.S. commercial interests. Hence, the smaller navy in this case 'won' due to default.

2. The U.S.-Ecuadorian "Tuna War" of 1971

Between 11-17 January 1971, Ecuadorian patrol boats seized four U.S. tuna clippers which were reportedly between 48 and 60 miles off Ecuador's coast. The captains of two of the vessels, the Hornet and the Apollo, reported that during the encounter their boats had been strafed by unidentified fighter planes. Afterward, the Apollo captain reported that later in the fishery dispute, it had been fired upon by an Ecuadorian warship.

a. Political Stability

Ecuadorian politics has historically been characterized by instability, inefficiency, and change [Ref. 71:p.3]. Economic upheavals, based on an over-reliance on a single export commodity, has exacerbated the political chaos and thus led to military adventurism. The need to prop up weak administrations and protect state-dependent commodities has inspired political leaders to deploy military forces in instances where the adversary was much stronger.

The 1971 "Tuna War" against the United States represented this type of Ecuadorian political adventurism. At the time of this fishery-based conflict, the Ecuadorian President, Jose Maria Velasco Ibarra, had recently completed a self-seizure of power (autogolpe) when he dismissed Congress and the Supreme Court and assumed all political power.

The political environment in Ecuador had deteriorated to the point that Velasco had to institute severe economic austerity measures to prevent the Ecuadorian economy and his regime from collapsing. The causal link between Ecuadorian political instability and the commencement of a fishery-based conflict is summed in the book *Ecuador, A Country Study*. Editor Rex A. Hudson states, "Velasco attempted to compensate for his lost prestige [due to enacting sever economic austerity measures] by baiting the United States, seizing and fining U.S. fishing boats found within 200nm of the Ecuadorian coast." [Ref. 72:pp. 40-41].

The political instability of Ecuador continued in its characteristically historic way when, less than a year after the "Tuna War," Velasco lost support of the military high command and suffered a military-led coup.

b. Naval Enforcement Capability

The naval enforcement capability of the Ecuadorian Navy to defend their maritime claims against the U.S. Navy was, as it is today, non-existent. Fortunately for the Ecuadorian Navy, the U.S. Government chose not to respond militarily to the seizure of U.S. commercial fishing vessels and instead withdrew almost all economic and military aid to Ecuador.

During this period, Ecuador and Peru were the only two Latin American states actively using force to assert their national maritime claims. Professor Virginia Hagen clarified the political stability of Ecuador and Peru stating, "The greatest number of seizure incidents involved the U.S. tuna fleets operating off the coasts of these two states." [Ref. 73:p. 43].

The intensification of the "Tuna Wars" of the early 1970s inflamed tempers in both countries; Ecuador dismissed U.S. military advisers, and the United States withdrew most economic and military aid to Ecuador. [Ref. 74:p. 41]

Thus, it can be argued that Ecuador and Peru had a sufficiently low degree of political stability and a substantially dissimilar naval enforcement capability than its fishery-based conflict adversary.

3. U.K.-Icelandic "Cod Wars" of 1958-1976

The United Kingdom and Iceland engaged in a series of violent and bloody fishery-based conflicts from 1958 to 1976. At heart in their conflicts was the limits to exclusive exploitation of the seas surrounding the island-nation of Iceland.

Scholar Jeffery A. Hart categorized the series of fishery-based conflicts between Iceland and the United Kingdom into three major episodes: the first "Cod War" began in 1958 and ended in 1961; the second began in 1972 and ended in 1973; and the third began in 1975 and ended in 1976 [Ref. 75:p. 1]. Hart found similarity in each of these "wars', stating:

> "Each of these 'wars' has involved confrontations between Icelandic gunboats and British frigates and trawlers. In each, several people were injured or killed. Despite obvious disparity between the military might of Britain and that of Iceland, all three cod wars ended in agreements that were highly favorable to the Icelanders." [Ref. 76:p. 1]

Another commonality in these fishery-based conflicts was that all began because of the same reason: the unilateral expansion of Icelandic territorial waters and fishery jurisdiction. According to former Icelandic Press Secretary Hannes Jonsson[17], the Icelandic government, in its

[17] Hannes Jonsson served as Secretary for Press and Information for the Icelandic Prime Minister from 1971-1974. In his published doctoral dissertation he examines in great detail the fishery-based conflicts between Iceland and the Britain from the 1940s to the 1970s.

efforts to protect its most important national industry, needed to expand its claim to fisheries from 3nm to 4nm in 1952, from 4nm to 12nm in 1958, from 12nm to 50nm in 1972, and finally from 50nm to 200nm in 1975. [Ref. 77:pp. 48-183]

The Icelandic government stressed to the British and world community that they perceived fishery protection as vital to their existence as a sovereign nation. During the first of the cod wars, Icelandic Prime Minister Hermann Jonasson, on 7 September 1958, stated, "Fishing is more vital to us than any other nation, and we must therefore, be entitled to the most favorable conditions in this field." [Ref. 78:p. 88]. Later, during the third cod war, the Icelandic government sent a letter to the President of the U.N. Security Council which clarified the Icelandic position, "...no other independent state is so dependent upon ocean fishing as Iceland. Conservation of the fish stocks around Iceland is a matter of life and death for the Icelandic nation..." [Ref. 79:p. 165]. The opposing viewpoint of the British government was that neither Iceland nor any other government could prohibit fishing in areas of the ocean previously considered international high seas. [Ref. 80:pp. 84-85]

The "Cod Wars" provide cases outside of South American waters where the naval forces of a smaller nation, the

Icelandic Coast Guard, defended its maritime claims against a far superior naval force, in this case the British Royal Navy.[18] Surprisingly, the outcomes of all three 'Cod Wars" favored Iceland. British leaders accepted Icelandic claims to more ocean areas and limited British commercial fishing interests from exploiting Icelandic waters. Additionally, Britain suffered public relations failures due to the appearance it was acting as hegemonic power intent on crushing a militarily weaker NATO ally. Thus, in these fishery-based conflicts, the smaller navy 'won.'

4. Chile

Chile represents a deviant case in the study of fishery-based conflicts of western South America. Chile is special because of its historic absence from participation in fishery-based conflicts.

a. Political Stability

Historically, political stability has been as consistently present in Chile as it has been consistently absent in Ecuador and Peru. The perennial quest of the Chilean people for democratic institutions and principles has set them apart from the majority of their Latin American

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[18] Jonsson reported in his PhD dissertation that from September 1958 to February 1961, 37 British destroyers and frigates with approximately 7,000 crewmembers faced 6 small Icelandic Coast Guard boats with a total of 103 crewmembers. The military odds were as one-sided during the second cod war, when from September 1972 to May 1973, an Icelandic Coast Guard force of only seven small ships and 139 crewmembers squared-off against seven British frigates, four tugboats, three auxiliary ships, totaling 1,854 crewmembers. The British force also included a number of NATO Nimrod observation aircraft.

neighbors. According to *Chile, A Country Study*, "From 1830 until 1973, almost all of Chile's presidents stepped down at the end of their prescribed terms in office to make way for constitutionally designated successors." [Ref. 81:p.200].

Although all three nations, Chile, Ecuador, and Peru are signatories on one of the most internationally contentious oceanic sovereignty documents, The 1952 Declaration of Santiago, only Chile has not participated in any serious fishery-based conflicts. This absence of oceanic disputes involving Chile is consistent with the proposition that political stability decreases the likelihood of fishery-based conflicts. From 1968-1972, the same period that Peru, Ecuador, and Iceland (in the North Atlantic) were engaged in fishery-based conflicts, Chile initiated no such disputes.

While the Chilean political situation was more stable than the situations in Ecuador and Peru, the Marxist regime of Salvador Allende was replete with destabilizing influences. Chile's non-participation in fishery-based conflicts during this period suggest that other domestic political factors play in the likelihood of FBCs. Political stability and dissimilar naval enforcement capabilities may be necessary but not sufficient causes of fishery-based conflicts.

b. Naval Enforcement Capability

Surprisingly, from 1968-1972 Chile, with a more capable navy than either Ecuador or Peru, did little to exert any influence over its claimed ocean areas.

B. CURRENT POLITICAL STABILITY OF CHILE, ECUADOR, AND PERU

Recent events in both Ecuador and Peru have once again challenged their political leadership and illustrated that political stability remains an elusive target for these two nations.[19] Economic and political crises (currency devaluations, coup d'etats, etc.) of the past and present have caused political turmoil which has resulting in police and military force deployments in Chile, Ecuador, and Peru.

Therefore, determining the degree of current political stability in Chile, Ecuador, and Peru may lead to predictions on whether their administrations will value the potential loss of human life in fishery-based conflicts worth the potential financial or political benefit.

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[19] For four months, Tupac Amaru rebels held 170 high-ranking diplomats hostage at the Japanese embassy in Lima. The crisis ended when Peruvian President Alberto Fujimori ordered special para-military forces to storm the embassy, resulting in the deaths of two diplomats and all 14 rebels. Although the Tupac Amaru rebels suffered severe losses, the guerrilla group continues to exist, as does the more violent Sendero Luminosa, fueling instability in Peru.

In Ecuador, the recently-elected president, Asaad Elmhalim Bucaram, was deposed by the Ecuadorean Congress yet refused to leave office. After several tense weeks in Quito, power was wrestled from Bucaram, popularly referred to as "El Loco" (The Crazy One).

Table 1 summarizes several factors that indicate a country's degree of political stability. Based on the results of this chart, Chile of the 1990s remains significantly more politically stable than Peru or Ecuador and therefore less likely to instigate a fishery-based conflict.

FACTOR	CHILE	ECUADOR	PERU
Years since independence	187 (1810)	175 (1822)	173 (1824)
Initiation of Current Constitution	1980 w/ substantial reforms in 1988	1979	1993
Duration of current administration	3 years (1994)	less than 1 year	7 years (won election in 1990; autogolpe in 1992; new won elections in 1995)
Latest mandate	57.4% of overall vote	27% no candidate received more than 50% of the vote	64.4% of popular vote
Existence of loyal opposition	YES	YES	YES
Civilian control over the military	YES	YES	YES (military backed autogolpe of 1992)
System of Checks and Balances	president; 46-member Senate; 120-member Chamber; 12-member Supreme Court	president; 60-member Senate; 180-member Chamber; 12-member Supreme Court	president; 60-member Senate; 180-member Chamber; 12-member Supreme Court
Significant armed guerrilla groups	NO	NO	YES/2 Sendero Luminosa Tupac Amaru
Stable economy	YES Strongest economy in Latin America	NO	NO

Table 1. Current Political Stability Factors of Chile, Ecuador, and Peru.

C. CURRENT NAVAL ENFORCEMENT CAPABILITIES OF CHILE, ECUADOR, AND PERU

The capability to enforce national maritime claims is related to the likelihood of fishery-based conflicts transitioning from verbal or commercial spates into military conflicts. The potential of engaging a similarly-equipped naval force battling over oceanic access and/or resources would lead to severe losses to both parties. Therefore, based on the cases of this thesis and with other political and economic factors excluded, a wide ***disparity*** in naval enforcement capability among belligerents increases the likelihood of fishery-based conflict.

With respect to enforcing their oceanic sovereignty claims, Chile, Ecuador, and Peru are faced with similar naval enforcement challenges. All three nations must defend their claimed ocean areas from overexploitation by distant-water fishing fleets yet the capability to perform such naval missions is different among these Andean nations.

The Center for Naval Analysis, in its report *Future Naval Cooperation With Latin America: Final Report*, probably provides the most accurate characterization of the capabilities of the Chilean, Peruvian, and Ecuadorian navies. They report found that Chile has a "near-NATO" level blue-water naval force, Peru has a professional navy

capable of limited out-of-area operations, and Ecuador has primarily a green-water coastal navy [Ref. 82:pp. 2&29]

1. Chile

The Chilean Navy is the most proficient naval force on the western coast of South America. Naval surface combatants and submarines train with U.S. Navy units in annual bilateral exercises. The senior civilian and military leadership of Chile have committed themselves to backing up their maritime claims with appropriate military capability. Seizing fishing trawlers and preventing illegal fishing is well within the capability of the Chilean Navy.

Additionally, the Chilean Navy maintains substantial influence in Chilean politics having won the battle against the Chilean Air Force to own all military aircraft flying over the sea. Naval aviation units adequate for the maritime surveillance and monitoring mission include the Lockheed P-3 and several helicopter types. [Ref. 83:p. 103]

As Table 3 illustrates, the Chilean Navy possesses the gross tonnage, ship types, and weapon systems to protect its UNCLOS III-delineated territorial seas out to 12 nautical miles. Against regional foes, i.e. Peru, Colombia, or Argentina, the Chilean Navy is superior. The Chilean Navy's training and tactics are superior to its neighboring naval forces because of its historical experience with Prussian

military doctrine and more recently, due to the Navy's adoption of U.S. naval tactics and training.

However, against a politically-committed naval force from North America, Western Europe, or the Russian Pacific Fleet, the Chilean Navy could not defend its self-proclaimed territorial waters to 200nm and beyond. To its credit, Chile procured the highly lethal Exocet anti-ship missiles for its primary weapon system against surface combatants. As the following chart depicts, the principal limiting factor to the Chilean Navy's use of such modern, high-tech weaponry is that they currently have only two platform from which to deploy the missiles, the Pratt County class destroyers and the Leander class frigates.

The Chilean Navy has the naval enforcement capability to defend its oceanic sovereignty claims but has not yet been directed to do so by the Chilean political leadership. Up to this point, Chilean leaders have found non-military solutions (including bilateral fishery agreements and fishery quota systems) to oceanic sovereignty issues.

Type	Active	Proj	Weapons Systems
Patrol submarines (2 x Type-209; 2 x Oberon class)	4	(4)	8 x 21 in. Torpedo tubes
Pratt County class destroyers	4	-	2 x 4.5in guns; 2 x 40mm cannons; 1 x 12.7mm machine gun; 6 x MK32 torps; 4 x Exocet SSMs; 2 x SAMs
Leander class frigates	4	-	2 x 4.5in guns; 2 x 20mm cannon; 4 x Exocet SSMs
Patrol ships	1	(4)	
Casma class fast attack craft (missile)	2	-	2 x 3in OTO Melara gun; 4 x IAI Gabriel SSMs
Fast attack craft (missile)	2	-	1 x 3in OTO Melara gun; 2 x 12.7mm machine guns 4 x IAI Gabriel SSMs
Guacolda class fast attack craft (torpedo)	4	-	2 x 40mm cannon; 4 x 21in torps
Micalvi class large patrol craft	4	-	1 x 40mm cannon; 2 x 20mm cannon
Grumete Diaz class patrol craft	10	-	1 x 20mm cannon; 1 x 12.7mm machine gun
Protector class patrol craft	4	-	
Patrol vessel (WPC)	1	-	2 x 12.7 machine guns
Light coastal patrol craft (LPC)	12	-	2 x 20mm cannon
Inshore patrol craft (PBI)	14	-	1 x 12.7mm machine gun

Table 2. Chilean Naval Order-of-Battle.[Ref. 84:p. 103-113]

2. Ecuador

Among the three nations subject to this study, Ecuador has by far the least effective naval force in terms of gross tonnage, lethality, and readiness. The Ecuadorian Navy maintains the capability to conduct coastal defense and inland waterway missions but lacks the ability to defend maritime claims out to 200nm. To compensate for this lack of size and influence, the Ecuadorian political leadership has in rhetoric and actions displayed a repeated willingness to commit naval forces to protect its maritime interests.

As the following chart shows, Ecuador does not possess an ocean-going fleet. Operationally, naval units and naval aviation assets are sufficient for coastal patrolling and limited fishery enforcement but not adept for sustained at-sea combat. Whether the naval adversary is from a regional state or from afar, the Ecuadorian Navy cannot defend its maritime claims of 200nm of territorial waters as stipulated in the 1952 Declaration of Santiago. Any opposing naval force would have the numerical and weaponry superiority over the Ecuadorian Navy and thus, win any intense naval engagement.

Therefore, the Ecuadorian Navy must continue to use tactics of seizures and harassment of commercial vessels perceived to be in violation of Ecuadorian oceanic

sovereignty. However, any escalation of tensions or military response to such seizures by a maritime power nation would be disastrous to the Ecuadorian Navy. An alliance of naval forces among Chile, Ecuador, and Peru would be the best course of action for Ecuador to pursue in enforcing its maritime boundaries.

Type	Active	Proj	Weapons Systems
Patrol submarines (2 x Type-209 class)	2	-	8 x 21 in. Torpedo tubes
Leander class frigates	2	-	2 Bofors 40mm guns; 2 x 20mm cannon; 4 x MM38 Exocet SSMs; SAMs; 1 x Bell 206B helicopter
Esmeraldas Class Corvettes (FSG)	6	-	2 x 4.5in guns; 2 x 20mm cannon; 6 x MM40 Exocet SSMs; SAMs; 6 x 324mm torpedo tubes; 1 x Bell 206B helicopter
Patrol ships	1	(4)	
Quito (Lurssen) Class fast attack craft (missile)	3	-	1 x 3in OTO Melara gun; 2 x 12.7mm guns; 4 x MM38 Exocet SSMs
Manta Class fast attack craft (missile)	3	-	2 x 30mm Emerson Electric guns; 4 x IAI Gabriel SSMs
Espada Class large patrol craft	2	-	1 x Bohors 40mm gun; 2 x 12.7mm machine guns
PGM-71 Class large patrol craft	2	-	1 x Bohors 40mm gun; 4 x Oerlikon 20mm; 2 x 12.7mm MGs
Light coastal patrol craft (LPC)	2	-	2 x 7.62mm MGs
River patrol craft (PB)	8	-	2 x 12.7mm machine gun; 2 x 7.6mm MGs

Table 3. Ecuadorian Naval Order-of-Battle.
[Ref. 85:p. 173-177]

3. Peru

Peru possesses the third largest navy in South America behind Brazil and Argentina. Peru's Navy is similar to that of Chile and substantially greater than that of Ecuador. Peru's underwater capability is greater than any of its neighbors. Also, Peru's 4 LUPO-Class frigates and 6 fast attack missile craft are the most lethal naval units on the western South American coasts because of their speed, versatility, and weapons system.

Therefore, with respect to tonnage, type and number of ships, and weapons systems, Peru has appropriate naval enforcement capability to defend its national maritime claims against inter-regional actors. Also, Peru can defend its coastal waters and fisheries within its disputed 200nm territorial waters against distant fishing nations such as Japan, Taiwan, South Korea, Cuba, and China.

However, the naval forces of the United States, United Kingdom, Russia, and several western European nations are far superior to the Peruvian Navy. Based on the Peruvian naval order-of-battle depicted in Table 5, any of the maritime power nations would handily defeat the Peruvian Navy in a fishery-based conflict.

Type	Active	Proj	Weapons Systems
Patrol submarines (2 x Type-209 Class)	6	-	**8 x 21 in. Torpedo tubes**
De Ruyter Class cruiser	1	-	**4 x Bofors 6in. guns; 4 x Bofors 40mm guns; depth charges; helicopter w/ AM39 Exocet A**
De Ruyter Class cruiser-missile	1	-	**8 x OTO Melara SSMs; 8 x Bofors 6in. guns; 8 x Bofors 40mm guns; depth charges**
Daring Class destroyer	1	-	**8 x MM38 Exocet SSMs; 6 x Vickers 4.5in. guns; 4 x Breda 40mm guns; Helicopter platform**
Meliton Carvajal (Lupo) Class frigates	4	-	**8 x OTO Melara SSMs; 8 x Aspide SAMs; 1 x OTO Melara 5in. gun; 4 x Breda 40mm guns; 6 x 324mm ILAS torpedoes; 1 x Agusta AB 212ASW helicopter**
Verarde Class fast attack craft (missile)	6	-	**4 x MM38 Exocet SSMs; 1 x 3in OTO Melara gun; 2 x Breda 40mm guns**
Rio Canete Class large patrol craft	5	-	**1 x Bofors 40mm gun; 1 x Oerlikon 20mm gun**
Vosper Type large patrol craft	2	-	**2 x Bofors 40mm gun**
Naval Aviation - Agusta/Sikorsky ASH-3D Sea King	3	-	**4 x Mk 46 torpedoes; 2 x AM39 Exocet SSMs**
Naval Aviation - Beechcraft Super KingAir 200T	3	-	**unharmed; coastal surveillance and EEZ patrol duties**

Table 4. Peruvian Naval Order-of-Battle.[Ref. 86:p. 501-509]

D. ASSESSMENT

An examination of fishery-based conflicts case studies and the histories of Chile, Ecuador, Peru reveal that both research variables, political stability and naval enforcement capability, play a role in the likelihood of fishery-based conflict.

Currently, Chilean political stability is the highest of the three nations of this study. According to the hypotheses of this thesis, this relatively high degree of political stability minimizes the likelihood of fishery-based conflicts involving Chile.

The Chilean Navy's enforcement capability against its neighbors is either similar or moderately superior. Therefore, without a vastly dissimilar naval enforcement capability relative to its neighboring countries, the likelihood of a FBC against another western South American nation is low.

However, against a politically committed naval force from a distant-water nation such as the United States or the United Kingdom, the Chilean Navy's enforcement ability is virtually non-existent. Because of this disparity in naval enforcement capability the likelihood of future naval conflict in the waters surrounding the EEZ of Chile is assessed as medium against nations outside South America.

The relative political stability of Chile and its historic record of non-engagement in fishery-based conflicts prevent the assessment of high for Chile against any adversary.

Ecuador, easily the most politically unstable of the three Andean nations, has shown a surprisingly high propensity to defend militarily its oceanic sovereignty claims. Its repeated seizures of U.S. fishing vessels in the early 1970s challenged the naval and political might of the United States. Thus, the political will to deploy naval forces is higher in Ecuador than in Chile or Peru.

In terms of the specific variables under investigation in this thesis, Ecuador has the highest likelihood of engaging in another fishery-based conflict. Ecuadorian political stability ranks significantly lower than those of Chile and Peru. Also, there exist a substantially dissimilar naval enforcement capability between the Ecuadorian Navy and any other western South American navy or the navies of an external country, the Ecuadorian Navy will These combined factors suggest that the possibility of future resource-based naval conflict is greatest in the waters off the Ecuadorian coast.

However, the Ecuadorian Navy is ill-equipped to sustain intensive naval engagements and therefore can only protect

its claimed waters to the extent that a distant-water nation chooses not to engage.

The Peruvian Navy, on the other hand, can defend effectively its claimed maritime boundaries against its inter-regional neighbors and all but the largest of maritime powers. The question in the Peruvian case would be whether the political will and/or low enough degree of political stability exists to force the Peruvian leadership to deploy its navy for such an economic-based mission.

Table 5 summarizes the preceding assessments of the likelihood of future fishery-based conflicts involving Chile, Ecuador, and Peru.

	Chile	Ecuador	Peru	Other Hemispheric	Outside Hemispheric
Chile		**LOW**	**LOW**	**MED**	**MED**
Ecuador	**LOW**		**HIGH**	**HIGH**	**HIGH**
Peru	**LOW**	**HIGH**		**MED**	**MED**

Table 5. Potential Conflict Matrix

E. SUMMARY

All three nations of this study have demonstrated low degrees of political stability at various times since their independence from Spanish colonial rule.

Case studies have shown that a low degree of political stability, whether manifested in the form of regime bolstering or protecting the national economy, is a necessary but not sufficient cause of fishery-based conflicts. In each of the fishery-based conflict cases, a low degree of political stability or threat to regime survival was evident. The degree of political stability was not the sole factor in determining the likelihood of the disputes and therefore, cannot be said to be a sufficient cause.

Similarly, based solely on these three cases, dissimilar naval enforcement capability, has been shown to be a necessary but not sufficient cause of FBCs. The sole fact that countries have vastly different naval forces does not increase their likelihood of engaging in FBCs. However, after evaluating the three cases in this thesis, all of the conflicts possessed the characteristic of one nation having overwhelmingly superior naval forces. Surprisingly, in these cases, a hugely superior navy did not effect the outcome of the dispute. Domestic politics may have more

effect on the occurrence and outcome of fishery-based conflicts.

The final chapter of this thesis builds upon the historical, theoretical, and analytical evidence presented previously to determine the foreign policy implications of fishery-based conflicts in the southeastern Pacific Ocean. Also, evaluated are the challenges oceanic sovereignty causes for the U.S. Navy, U.S. Coast Guard, and the U.S. Intelligence Community.

V. CONCLUSIONS

The causal factors which led to previous fishery-based conflicts in western South America continue to exist. The volatile mix of nationalistic coastal states pitted against more powerful distant fishing nations virtually ensures the occurrence of future maritime disputes.

The powerful "haves" of the developed world will find it increasingly difficult to exert their past domination over "have-nots" of the developing world with respect to lucrative and vital biological resources of the world's oceans. With increased threats to regime survival and as domestic political stability weakens, the government leaders of Chile, Ecuador, and Peru will be under pressure to defend their nations' claims to the resources of the sea.

Peter Weber's view that fisheries are part of the public trust and a responsibility of the government acknowledges the fact that "...there is always a role for government, whether enforcing the right of a community to bar outsiders and manage its own fisheries, or by pursuing more active regulation and patrolling." [Ref. 87:p. 36]

The demands by foreign fishing fleets upon the disputed ocean areas claimed by Chile, Ecuador, and Peru require constant monitoring and potent enforcement capabilities. Against the naval forces of one of the world's maritime

powers, those fishery protection capabilities do not currently exist in Western South America. Therefore, to Chile, Ecuador, and Peru, fishery protection operations will encourage increases in 'green-water' naval weapons procurements as these Andean nations enter the 21st century.

All nations seek to protect their economic and cultural survival. The wealth gained by exploiting the coastal and oceanic regions of the southeastern Pacific Ocean, can encourage states to exploit fisheries until the resource is exhausted. International condemnation of the exploitation of these natural resources will not supplant the states' desire to grow and modernize. South American nations will continue to charge hypocrisy when industrialized nations argue for protecting the South's environment after pillaging their own resources in the name of industrialized growth. Countering Marc A. Levy's conclusion that only ozone depletion and climate change pose direct threats to U.S. interests [Ref. 88:p. 61], this study concludes that environmental degradation in general and FBCs specifically may lead the U.S. Navy into further non-traditional missions such as fisheries monitoring and high-seas peacekeeping missions. Maintaining the peace in resource-rich regions such as the southeastern Pacific Ocean will continue to be a challenge of the budgetary-constrained U.S. Navy.

In sum, this paper dealt with three major questions. First, will continued over-exploitation of ocean resources cause an international or intra-regional conflict involving Chile, Ecuador, and/or Peru? The answer to this can only be conjectural, but consistent with the theories and of the environmental Neo-Malthusians, resource conflict in such a fertile and lucrative area as the southeastern Pacific Ocean is virtually guaranteed.

The second major thesis question was whether the degree of political stability present in a nation cause governmental leaders to deploy naval forces. Analysis and application of theory leads to the conclusion that political stability, or more accurately political instability, is a principal causal factor in fishery-based conflicts. Whether political stability is based on a desire to prop up a struggling administration, in the cases of Peru and Ecuador, or protect a vital national economic resource, in the case of Iceland, political instability will cause heads-of-state to deploy naval forces.

The final research question addressed by this paper was whether Chile, Ecuador, and Peru have the naval enforcement capability to enforce their maritime claims. Based on the research data collected, including naval inventory and crew proficiency, Chile and Peru have the capability to protect military their claimed 200nm territorial waters from

essentially all but the strongest of global navies. The Ecuadorian Navy, on the other hand, cannot defend its oceanic claims past 12nm territorial boundary stipulated in the UNCLOS III unless an adversary chooses not to oppose However, one must caveat such statements because without the *political will* to deploy naval forces, possibly highest in Ecuador, a nation's numerical naval strength is practically irrelevant in defending its oceanic sovereignty claims.

A. RECOMMENDATIONS

This study suggests that policy-makers interested in international order and cooperation should adhere to the United Nations Law of the Sea Convention, or other multi and bilateral fishery agreements. Bilateral agreements between nations with distant-water fishing fleets and Chile, Ecuador, and Peru represent the best means for avoiding fishery-based conflicts. Through the use of quotas, these bilateral marine resource agreements can be crafted to respect simultaneously the controversial 200nm territorial declarations of the Andean states while ensuring the economic use of fisheries for the world's maritime powers.

It is vital for the developing world to address this source of international conflicts immediately because fisheries supplies will always be stressed since the global

demand for fish is expected to continue its steady growth as the world's population expands.

According to the INSS, the world is increasingly beset by resource-based problems that involve the "global commons," areas such as the oceans and the atmosphere that are supposedly owned collectively by all nations rather than being the sovereign territory of any single nation. The INSS offers optimism on the likelihood of future fishery-based conflicts by concluding that, "[With respect to abiding with international treaties] In order to secure compliance from non-cooperating countries, the most likely route is to use trade restrictions and privileges. Military force is not likely to be useful..." [Ref. 89:INTERNET] This view of non-usage of military force in environmental conflicts is probably accurate in describing the actions of politically stable, developed nations but not as accurate in predicting the actions of politically unstable countries.

B. IMPLICATIONS FOR SOUTH AMERICAN POLICY

Even with the establishment of the internationally-disputed 200nm territorial zone in 1952, there was still concern among Chile, Ecuador, and Peru that valuable species of fish and marine life inhabiting and straddling their disputed 200nm territorial waters were in danger of being seriously depleted, if not becoming extinct. This fear was

based and continues to be based on the rapid proliferation of high-technology methods of fish harvesting and processing employed by numerous foreign fleets illegally fishing in their waters.

The importance of marine resources revenues will keep the fisheries protection a vital national objective. Chile, Ecuador, and Peru will remain caught in the middle between accepting and abiding by international law and their nationalistic desire to reap resources from a huge share of the sea.

To Chile, Ecuador, and Peru, the fact that it took three attempts and 14 years to ratify and enact into international law the UNCLOS III Convention, indicates the complexities surrounding the question of "Who owns the oceans?" Coastal states with limited naval forces, fitting into the definition of the "Small Navy Theory," must reconsider their priorities regarding naval missions and, perhaps, to restructure their navies.

Integration of naval policy and fisheries management can provide alternative methods of conflict resolution among neighboring states. Intraregional oceanic sovereignty disputes can be resolved similar to the Beagle channel conflict between Argentina and Chile. These two Southern Cone nations agreed to create a binational commission and Papal mediation to facilitate the economic integration of

the region, and agreed to abstain from warfare in the area. Additionally they formalized a treaty for a five-year suspension of all disputes that might arise along the entire length of the common national boundary. [Ref. 90:p. 70]

Alternative methods of conflict resolution show promise but the best chances for success in avoiding resource conflicts are to foster regional economic integration (such as NAFTA and MERCOSUR), and promote political stability in South America through the adoption of democratic principles.

C. IMPLICATIONS FOR U.S. FOREIGN POLICY

The oceanic disputes between the United States, as a member of the 'North,' and the nations of western South American, all belonging to the 'South,' originate from one fundamental question: Who owns the ocean?

The answer to this question has great economic and national security consequences to the United States and most other coastal nations. From a dollar value alone, commercial fishery production in the United States adds up to over $4.1 billion annually [Ref. 91:INTERNET]. The economics of ocean fisheries combined with the intangible national security concept of freedom of the seas present a unique foreign policy dilemma.

As an authority on the integration between U.S. and Latin American policy, scholar Virginia M. Hagen clarified

the dilemma faced by the United States in coping with international fisheries disputes of the early 1970s:

> The power that the United States had was its economic and military resources which were utilized to compensate American fishermen's losses on the one hand and to retaliate against the offending Latin American states on the other. However, when this kind of power was wielded to fight against those national claims partially backed by "nationalism," it triggered a backlash, for sovereignty and national dignity were non-negotiable. [Ref. 92:p. 56]

While the United States had to delicately weigh and balance each individual component of its integrated national interests, which included American fishermen's interests, U.S. foreign policy, security and economic interests in Latin America, [Ref. 93:p. 22] the Latin American states fought for their national well-being and dignity with greater intensity. [Ref. 94:p. 3288]

An opposing viewpoint on the effect of environmental degradation applicability to U.S. national security was presented by professor Marc A. Levy in his essay "Is the Environment a National Security Issue." Professor Levy argues that scholars who link environmental degradation to national security of the United States are primarily attempting to get more government support for their efforts to save the environment rather than add to the academic dialogue of national security. The link between environment and security, in his view, is often evaluated without regard

to political causal factors that lead nations into conflict. [Ref. 95:pp. 35-62] Although Professor Levy faults the research methods of those who simplistically merge environment and national security, he provides an interesting dichotomy of the debate. He states, "...the direct threat from environmental degradation (involving environmental refugees, resource wars, and so on) is at once both the weakest substantive threat to U.S. security and the strongest intellectual challenge to the field of security studies." [Ref. 96:pp. 36-37] Professor Levy presents a valid point that the environmental-based conflicts do not pose a direct threat to the national security of the United States. He does, however, over-simplify and trivialize the rationale that scholars are using to bring environmental awareness to the forefront of political debate. Environmental degradation and closely-related, natural resource exploitation, continue to be the source of international relations conflicts.

Perhaps Robert O. Keohane and Joseph S. Nye, in their book *Power and Interdependence*, state the security challenges for the United States best when they say:

> The growth of economic and ecological interdependence does not provide clear, deterministic guidelines for foreign policy ... a central issue will be how to exercise international leadership without the capability for hegemony. American leadership will encounter the same need to set a good domestic example, but will find the application of power more difficult. [Ref. 97:p. 242]

The difficulties in enforcing maritime claims and the lack of international institutions capable of managing transnational environmental problems, leaves the United States with few viable options. One policy option is to do all in our power to avert and alleviate international environmental problems on a unilateral basis. This may entail use of our trading and financial strength to defend international standards while displaying a willingness to join in cooperative agreements. A second approach is through example, research, information, and persuasion. The United States can take the lead in financing and supporting the U.N. agencies charge with the monitoring the oceans and enforcing international fisheries management directives. [Ref. 98:p. 141]

The U.S. Commerce Department already has taken concrete actions to support global and regional fishery management organizations and to minimize the likelihood of fishery-based conflicts. Under the late Commerce Secretary Ronald H. Brown, the Commerce Department implemented the High Seas Fishing Compliance Act of 1995. This legislation requires U.S. vessels fishing on the high seas to obtain a permit and comply with all international conservation and management measures recognized by the United States.[Ref. 99:INTERNET]

Through such self-initiated policy, the United States can counter charges from the developing world that the United States has recognized and is addressing the problems of environmental degradation. Similar to encouraging human rights among its trading partners, the United States demonstrates its world leadership by establishing such policy that respects both the sovereign rights of nations and the 'environmental rights' of the world's peoples.

D. IMPLICATIONS FOR U.S. NAVAL POLICY

INSS' *Strategic Assessment 1995* concludes that the U.S. Navy has recognized the emergence of non-traditional naval missions and has adapted its planning to conform with the new doctrine of near-shore engagement. Also, the establishment of the new UNCLOS III ocean regime has elevated the priority of littoral naval actions and the role of coastal navies. [Ref. 100:INTERNET]

However, U.S. Navy tactics, techniques, procedures, and weapons acquisitions must be tailored for this more complex environment that littoral warfare presents. In *"Forward...From the Sea,"* the latest strategy of the U.S. Navy, U.S. naval leaders stress that "the most important role of naval forces in situations short of war is to be engaged in forward areas, with the objectives of preventing conflicts and controlling crises." [Ref. 101:pp. 46-49]

Furthermore, current naval doctrine needs to raise the importance level of non-traditional missions and place these NTMs under the framework of Commander, Joint Task Force(CJTF) principles. As NTMs have become increasingly more prevalent than traditional naval missions, doctrine must adapt and train military officers in the type of operations in which they will most likely be engaged.

To avoid overstating the threat to U.S. national security or the U.S. Navy, there will have to be other critical political and domestic factors present before a U.S. Navy carrier battlegroup is stationed within contentious ocean areas with the primary mission of fishery or EEZ enforcement, i.e. the 1986 freedom-of-navigation deployment to the Gulf of Sidra.

The U.S. Navy will not likely be deployed to support directly U.S. fishing interests. The U.S. Coast Guard, chartered and properly equipped for such a mission, will remain the responsible force for defending American citizens engaged in near-shore seaborne commerce. However, the potential exists for U.S. Navy and the entire U.S. Intelligence Community's involvement in larger FBCs that are mediated under the auspices of the United Nations.

1. Law Enforcement Component Commander(LAWFOR)

Fisheries patrolling is and has always been an integral part of the U.S. Coast Guard (USCG) mission. As such, the USCG is a natural fit for fulfilling the role of CJTF Law Enforcement Component Commander (LAWFOR) during a UN-sponsored FBC peacekeeping operation. However, current Joint Doctrine does not include the USCG in a standardized capacity as a component commander and relies on various agencies to fulfill the LAWFOR role.

This study concludes that what is needed is closer interaction of the U.S. Coast Guard in the Commander, Joint Task Force (CJTF) concept and doctrine.

For virtually all non-traditional naval missions e.g., FBCs, drug interdiction operations, refugee abatement, environmental protection and clean-up there exists an important law enforcement requirement. The USCG is uniquely qualified to perform such law enforcement actions and, as such, should be doctrinally designated as the CJTF Law Enforcement Component Commander(LAWFOR).

The explosive growth and success of the CJTF concept and its proven effectiveness should ensure that the concept is encompasses any future fishery-based conflict. To that effect, U.S. joint military publications should be written for CJTF operations that are legal as opposed to combative

in nature, i.e. resource conflicts, refugee migration, or counter-drug smuggling. Current military operational tempo, systems interoperability structure, and logistics can be adapted to establish the 11th USCG Headquarters as the Law Enforcement Component Commander for a fishery-based conflict operation in the Southeastern Pacific Ocean.

As CJTF LAWFOR, the USCG would have expanded command and control, communications, computers, and intelligence (C4I) capabilities and interoperability. Initially, LAWFOR would have a secret/noforn level Global Command and Control System (GCCS) and a separate or GCCS-imbedded Joint Deployable Intelligence Support System (JDISS). The communication paths now provided to CJTF Marine Component Commanders (MARFOR), Naval Component Commander (NAVFOR), Army Component Commanders (ARFOR), and Air Component Commanders (AFFOR), should be available to LAWFOR.

Annual military exercises, whether computer training exercises (CPX) or field training exercises (FTX), should include LAWFOR. USCG Cutters could be designated LAWFOR command ships and integrated into the same C4I architecture as other component CJTF commanders.

USCG Headquarters Pacific and Atlantic possibly could serve as alternate CJTFs for non-traditional missions that are primarily of a law enforcement nature. Additionally, this integration of the USCG as LAWFOR for missions in which

their unique experience is critical would benefit the other U.S. military services through a sharing of experiences, tactics, and knowledge.

Senior U.S. naval leadership, authors of *Forward...From the Sea*, view non-traditional military missions and littoral warfare as much more likely to occur than another major land tank battle, blue water naval engagements, or opposed air-to-air engagements. To that effect, it will be useful, from a training and operational standpoint, to integrate the U.S. Coast Guard into annual CJTF planning and exercises.

2. Implications for the U.S. Naval Intelligence Community

The U.S. Intelligence Community is properly prepared for the challenges of non-traditional missions such as resource-based naval disputes. The Office of Naval Intelligence (ONI) is committed to "devoting significant resources to formerly non-traditional maritime intelligence missions" [Ref. 102:p. 15], which will involve in-depth integration and cooperation with the U.S. Coast Guard. By providing this service, ONI fulfills one of the primary functions of the Navy, "to furnish intelligence support for the Coast Guard." [Ref. 103:p. I-1-2]

This integration of the U.S. Coast Guard into the military's C4I architecture will stress the intelligence

cycle but not cause grave damage. A primary challenge of intelligence professionals is to ensure the security of sources and information when operating with law enforcement components.

Training of intelligence officers and enlisted personnel to support fishery-based conflicts or other non-traditional missions is similar to the CJTF-focused training that is common throughout the U.S. military. The emergence of environmental issues as a target for intelligence does not change the nature of the intelligence field from the principal tasks of collection, processing, analysis, and dissemination.[20]

Environmental-based conflicts such as FBCs have similar intelligence requirements as other multinational operations such as humanitarian relief in Somalia or peace accord monitoring in Bosnia. To that effect, in any future fishery-based conflict, intelligence principles must include:

- Adjust national differences among nations
- Establish unity of effort against common threat
- Determine and plan intelligence special arrangements
- Exchange and share intelligence across services and with foreign nationals
- Establish complementary intelligence operations
- Set up a combined intelligence center
- Provide for liaison exchange

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[20] Environmental monitoring is another new national intelligence requirement according to Vice-President Al Gore. Vice-President Gore led an effort to make available hundreds of thousands of reconnaissance satellite images. Some 800,000 declassified images processed by the National Reconnaissance Office between 1960 and 1972, released in February 1995, are available on the Internet. Environmental targets are becoming part of the tasking of imagery satellites. But intelligence personnel who interpret such images may find that expertise in identifying the signatures of Soviet military forces does not necessarily translate into a facility for addressing environmental issues. INSS *Strategic Assessment 1995.*

These preceding principles must be instituted in addition to the traditional intelligence principles stipulated in the *Joint Doctrine for Intelligence Support to Operations*. [Ref. 104:p. VIII-3]

This is not to say that there are no obstacles or difficulties for the U.S. Naval Intelligence Community in supporting non-traditional missions. Several significant challenges exist. One of the toughest of these challenges for the intelligence community is to assume responsibility for intelligence support to these NTMs while maintaining operational readiness in this Post-Cold War era of dwindling financial resources. Another complication is that ONI's commitment to provide intelligence support to U.S. and coalition operations other than war, has led not only to greater sharing of intelligence with foreign governments but also to increased reliance on foreign expertise. This commitment, however necessary, has led to gargantuan problems of interpreting foreign languages, maintaining sufficient regional expertise, and ensuring proper security classifications. In response, the Navy's newly-created Foreign Area Officer program should, over time, alleviate many of these obstructions to efficient and effective intelligence flow.

Intelligence of the ocean areas, a traditional venue of the Naval Intelligence Community, will become more critical because in the not-to-distant future, like all the terra-firma on the planet, all the water of the Earth will be 'owned.' Tragically, the seven seas eventually will be considered sovereign territory of national or supranational entities and arbitrary boundary lines in the ocean will mimic the arbitrary boundary lines drawn on land, thus guaranteeing future conflicts at sea.

E. AREAS FOR ADDITIONAL RESEARCH

Scholarly literature on maritime issues is overwhelmingly skewed towards the analysis of the large, global navies of the industrialized nations. Traditional naval missions such as power projection, strike warfare, and high seas warfare dominate the discussion of naval analysts. With the demise of the Soviet Union and the end of the Cold War, lesser priority naval missions should be investigated in the context of how these non-traditional missions will effect North-South international relations.

Non-traditional missions must be analyzed more than just in terms of conducting amphibious operations or overland airstrikes, such as the operations in Somalia and Bosnia, respectively. Further research is needed on how NTMs will affect the operations of the U.S. Navy, U.S..

Coast Guard, and the U.S. Intelligence Community in these times of dwindling defense budgets.

Naval enforcement missions must no longer be researched as independent, grand, Mahanian[21] events but instead, evaluated in the greater sphere of the effect on domestic politics, national policy-making, and global economic influence.

There is currently a significant gap in the research devoted to the national security implications of environmental crises. After reviewing a wide swath of academic sources, it appears much of the work is devoted to the historical, economic, and scientific aspects of the global environment. Marine biologists are correctly moving forward with proposed solutions to oceanic environmental degradation while environmentalists are active in studying and predicting the consequences of over-exploitation of the Earth's resources. However, social scientists need to apply their international relations and conflict causation theories towards determining how governments and institutions will and should react to future oceanic sovereignty challenges.

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[21] In the late 1800s, naval theorist Captain Alfred Thayer Mahan taught and wrote of a new naval theory based on two precepts: 1) national prosperity and destiny were based on mercantilistic imperialism and 2) a powerful sea-going navy was necessary to protct overseas colonies and the merchant marine fleet. See the discussion in Armed Forces Staff College, *AFSC Pub 2: Service Warfighting Philosophy and Synchronization of Joint Forces*, pg. I-1-5, Norfolk, Virginia, August 1992.

APPENDIX A

FUTURE FISHERY-BASED CONFLICT SCENARIO

1) El Nino phenomena occurs in two consecutive years. Major fishing crisis ensures for Chile, Ecuador, and Peru.

2) Consortium of CEP government agencies act collectively to protect sovereign ocean resources rights.

3) CEP heads-of-state, bowing to internal political pressures, dispatch CEP naval vessels to expel foreign commercial fishing fleets from CEP's claim 200 nm territorial waters. U.S., Japanese, Taiwanese, and Russian commercial fishing fleets present in CEP-claimed waters.

4) After expulsion by CEP naval units, commercial fishermen protest to respective governments.

5) Fiery San Diego congressman appeals to U.S. House of Representatives to allot funds for naval missions in support of U.S. maritime (fishing) interests.

6) CEP consortium appeals to UN citing tacit Group 77 approval and the provisions of the 1952 Declaration of Santiago. CEP evokes this declaration to avoid suffering the same economic devastation as that which struck Peru in the early 1970s and Canada in the 1990s. Chile, Ecuador, and Peru deploy naval units to defend their national maritime claims and top protect migratory fisheries outside the 200nm boundary.

7) As tensions increase, the Office of Naval Intelligence (ONI) and the Joint Intelligence Center, Pacific (JICPAC) are tasked to increase collection, processing, analysis, and dissemination in the area. Primary intelligence requirements are the location, capability, and activity of fishing vessels and surface combatants.

8) U.S. Coast Guard Pacific Fleet units and U.S. Navy's 3rd Fleet Task Force sent to CEP waters to show resolve and protect U.S. commercial interest. Additional ocean surveillance conducted by U.S. west coast-based P-3 Orion aircraft.

9) Russia sends refurbished guided missile destroyer and escort ships to show resolve and to protect factory fishing ship operating off Peruvian coast.

10) Japan deploys a complement of 3 surface combatants as their contribution to a coalition naval force.

11) Diplomatic negotiation in Washington, D.C. lead to a compromise between CEP and the United States on access to fishing grounds and maximum allowable fish catch sizes.

12) UN-sponsored peacekeeping operation Joint Task Force established in Santiago, Chile. U.S. 3rd Fleet assigned as Naval Forces Component Commander (NAVFOR) and U.S. Coast Guard 11th District assigned as Law Enforcement Component Commander (LAWFOR).

13) USN and CEP naval units avoid direct confrontation.

14) Diplomatic stalemate between CEP and Russian delegation in Washington, D.C.

15) Russian and Ecuadorian naval units face off.

16) Shots fired.

APPENDIX B

SUMMARY OF CURRENT FISHERY-BASED CONFLICTS

[Ref. 110:INTERNET]

Dec 1996 British and French fishermen fight over rich fishing grounds around the Channel Islands. French Coast Guard vessel and helicopter protects seven French fishing boats. (*Press Association Limited, 12 December 1996*).

Dec 1996 Japan and China held two days of talks on bilateral fishing matters at the foreign Ministry in Tokyo. Officials met to discuss a new fisheries agreement, following Japan's ratification of the Law of the Sea Convention and Japan's establishment of a 200-mile exclusive economic zone. (*Kyodo News International, 9 December 1996*)

Dec 1996 China has reportedly decided to establish a 200,000-strong para-military "maritime cruise unit" to safeguard and manage areas under its jurisdiction and guard against any infringement upon its rights and interests. The new unit will use advanced technology, including marine surveillance aircraft, radars, satellite remote sensing equipment, and Zhi-9 helicopters. (*BBC Summary of World Broadcasts, 7 December 1996*)

Nov 1996 The Honduran government filed an official protest with Managua after two fishing boats were arrested by Nicaraguan naval vessels in disputed Caribbean waters. Presidents Carlos Roberto Reina and Violeta Chamorro to meet to discuss the formal demarcation of the maritime frontier. (*Latin American Weekly Report, 28 November 1996*)

Oct 1996 Russian Coast Guard seized a Japanese fishing boat with five men aboard on 12 October 1996 for alleged poaching in Russian-held waters off Japan's northernmost main island of Hokkaido. The Japanese Foreign Ministry has protested the seizure, the first in the disputed waters since September 1995. (*Kyodo News Service, 14 October 1996*)

Oct 1996 Russian fishermen may resort to force to stop Icelandic fishing trawlers depleting stocks of cod in the Barents Sea, warned the deputy head of Russia's State Fisheries Committee. Russian fishermen were "considering seeking support from Russia's armed forces ministries" to stop Icelandic trawlers illegally catching cod in the Barents Sea. (*Agence France Presse, 12 October 1996*)

Oct 1996 The United Kingdom and its European partners are headed for a showdown over fishing. The issue in contention is "quota-hopping"- the practice in which foreign fishermen buy British licenses. UK fishermen are outraged by the sight of Spanish boats heading off to Spanish ports with fish caught against British quotas. (*Financial Times, 16 October 1996*)

Aug 1996 Vietnam reported that useful talks had been held with China on the demarcation of the Gulf of Tonkin, which the two countries share. The area has been a source of disputes over fishing rights and oil exploration. (*Reuters, 8 August 1996*)

APPENDIX C

TERRITORIAL DECLARATIONS OF WESTERN HEMISPHERIC STATES

[Ref. 111:pp. 183-193]

United States of America: Presidential Proclamation, 28 Sep 45:

Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.

Harry S. Truman

United Mexican States: Presidential Declaration, 29 Oct 45 (*El Universal*, Mexico City, 30 October 1945, pp. 1, 17.)

For these reasons, the Government of the Republic claims the whole continental shelf adjacent to its coasts and all and every one of the natural riches, known or still to be discovered, which are found in it, and will proceed to supervise, utilize and control the zones of fishing protection which are necessary for the conservation of this source of well-being.

Mexico, D.F., 29 October 1945.

The President of the Republic,

Manuel Avila Camacho

Panama: Constitution, 1 Mar 46 (Excerpt)

4th. The air space and continental shelf corresponding to the national territory.

Argentine Republic: Presidential Decree, 11 Oct 46

In the international sphere conditional recognition is accorded to the right of every nation to consider as national territory the entire extent of its epicontinental sea and of the adjacent continental shelf;

Article 1. It is hereby declared that the Argentine Epicontinental Sea and Continental Shelf are subject to the sovereign power of the Nation:

Chile: Presidential Declaration 25 Jun 47

The Government of Chile confirms and proclaims the national sovereignty over the whole continental shelf adjacent to the continental and insular coasts of the national territory whatever its depth may be, claiming,

consequently, all the natural riches which exist on, in, or under said shelf, know or to be discovered.

Gabriel Gonzales Videla,
President of the Republic

Peru: Presidential Decree, 1 Aug 47

That it is equally necessary that the State protect, conserve, and regulate the use of fishing resources and other natural wealth which is found in the epicontinental waters which cover the submarine platform and in the continental seas adjacent to it, in order that this wealth, essential to the national life, shall be exploited now and in the future in such a way that no detriment is caused to the economy of the country to its food production;

J.L. Bustamante R.
E. Garcia Sayan

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